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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical, and Nursing Services

Vol. VIII *February, 1917* No. 2

NEW BUILDING FOR THE HOSPITAL FOR DEFORMITIES AND JOINT DISEASES

New York Institution Preparing to Treat Wreckage From Epidemic of Infantile Paralysis —Work Already Has Attracted World-Wide Attention—Some Details of Plans of New Building

By MONTROSE CRAIGER, Superintendent, and MAX G. HEIDELBERG, Architect

THE HOSPITAL'S WORK—BY MONTROSE CRAIGER

ALMOST simultaneously with the announcement that the Health Department of New York city is face to face with the problem of the after-care of approximately 10,000 children who have been stricken with infantile paralysis the past few months, comes the information that a wealthy citizen of Pittsburgh proposes to place about $1,000,000 of his fortune at the disposal of the directors of the New York Hospital for Deformities and Joint Diseases to provide for the erection of a new and up-to-date building, and its partial endowment.

The tentative plans call for a structure twelve stories in height, with a frontage of 60 feet, to be put up on the site of the present hospital on Madison avenue and One Hundred and Twenty-third street. This is an admirable location overlooking Mt. Morris Park. The new building will contain 400 beds, exclusively for patients, as the nurses, attendants, and servants will have their quarters nearby in buildings belonging to the institution.

It is proposed in the new hospital to have wards especially for victims of infantile paralysis, of whom the authorities of the institution expect about 2,000 in the next two or three years. This estimate is based on the probable capacity of the place and the needs of the community. The cost of the new building, it is estimated, will be about $600,000.

Although poliomyelitis has proved to be one of the most baffling diseases which the physicians of this or any other country have been called on to deal with in epidemic form, it is known that certain forms of after-treatment often lessen the loss of muscular power and sometimes prevent the young patient from being crippled for life.

As examples of the kind of work that the Hospital for Deformities and Joint Diseases is called on to do in this connection, there may be cited the cases of boys and girls 9 or 10 years of age who have been paralyzed so badly that they are unable to sit up, and will require not only operative treatment in the way of tendon and bone transplantation, but muscle education as well. Where this is done, it will often be possible to transform the little sufferers into useful members of society.

Although not all of those who have been stricken with paralysis the past summer have begun their treatment in the orthopedic hospitals, most of the mothers are already bringing in their children. Thus an hour from the time a little girl had been discharged from one of the contagious hospitals, her mother brought her to the Hospital for Deformities and Joint Diseases for convalescent treatment. This child had a paralysis of certain muscles in the foot and leg, and, when this was observed, an aluminum splint was placed on the limb. A brace was also given the child. She will be brought weekly to the institution for electrical and massage treatment, as well as muscle training and corrective gymnastics. Where this is continued for many months, it is certain that great good will result to the patient.

The Hospital for Deformities and Joint Diseases employs a staff of over 100 trained masseurs, nurses, and physicians to give massage and

the Swedish movement, under expert direction, in the department for paralysis cases. The effect of this massage may be classified as mechanical, reflex, thermal, electrical.

1. The mechanical effects are by far the most important, but the others should not be overlooked or forgotten. They consist of the interchanging of cell contents under the influence of alternate pressure and relaxation; a quickened movement of the blood in the capillaries, especially in the muscular tissues; increased activity in the movement of the areolar fluid; acceleration of the currents of both blood and lymph in their respective channels.

Fig. 1. Hospital for Deformities and Joint Diseases. Present building at 41-43 East One Hundred and Twenty-third street.

2. The reflex, or purely nervous, effects of massage are obtained by light stroking and percussion. The former produces results which can be explained only on the supposition that it acts as a stimulant to the reflex system of nerves, the force used not being sufficient to account for any change on the mechanical theory.

3. The thermal effects of massage and movements are almost too apparent to need scientific demonstration; everyone is familiar with the fact that both muscular contraction in the form of ordinary exercise and simple friction develop bodily heat in a striking degree.

4. The effect of electric massage results partly from the development of the surface friction, partly from the attrition of the muscular fibers and cells, and partly from the nerve stimulation and chemical action.

"We give to the muscles involved a sinusoidal current," said Dr. Henry W. Frauenthal, surgeon-in-chief of the hospital, "alternating with a combined galvanic and faradic current, that contracts seventy-two times a minute, synchronous with the heart beat, and I regard this as an aid in the effect. It is known that contraction of the muscle can be obtained by means of an electric current when none can be obtained by the will; hence this is a valuable means of retaining and developing the muscle fiber until it comes under the guidance of the mind.

"Although many differences of opinion prevail as to the application of the sponge electrodes, we are in the habit of applying them at the origin and insertion of the muscles or muscle groups involved, always laying stress on the importance of approximating the origin and insertion of the muscle as nearly as possible. For instance, in

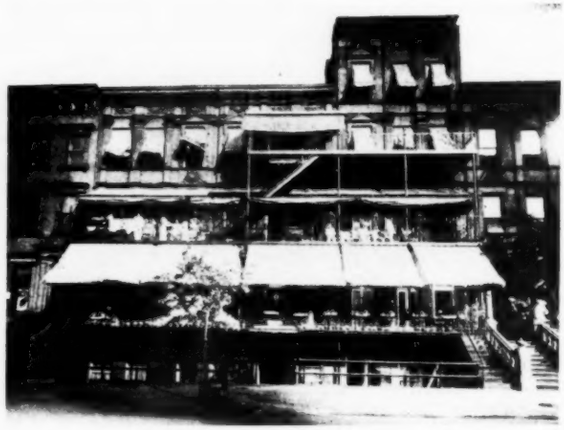

Fig. 2. Hospital for Deformities and Joint Diseases. Present building at 1915-1917-1919 Madison avenue.

treating the personal group, these muscles being most frequently involved, one sponge is placed over the middle third of the outer side of the fibula, the foot flexed as much above a right angle as possible, while the other sponge is applied over the insertion of these muscles on the outer side of the foot. In this way the bellies of the muscles are relaxed and a contraction is more easily made.

"Much foolish stress has been laid on the reaction of degeneration, and it can be proved, from a large practical experience, how deceptive this may be. It is said that a failure to obtain a muscle contraction by a galvanic or faradic current is an evidence of degeneration of the muscle fiber, and

that no improvement can be looked for in this paralyzed condition.

"Do we fail to obtain a contraction in most cases? No. We find that the cutaneous surface will not tolerate the pain of the current, and we must desist before contraction takes place, for most of the cases occur in children under 5 years of age, who see no reason for enduring the physical pain. This is even true in other cases when the age of the patient and his cutaneous tolerance are greater; the strong current may give no reaction and still the reappearance of function may occur.

Fig. 3. Hospital for Deformities and Joint Diseases. Dispensary. Admitting room on the main floor. Two clerks are employed to register old cases, one for new cases, and two stenographers to take the histories of new cases. There is also a drug room, with a dispensary assistant.

"The strength of the current used should be the weakest that will produce a contraction, but it is never to be used after contraction of the muscle ceases—no longer than from two to three minutes on any particular muscle group, or from six to twelve minutes on the body at one time. If this method is followed, the child will not cry from pain or have its nervous system upset by too long-continued electrical treatment. It is to be regretted that the worst results have often been in children in physicians' families, where there has been an excess of treatment—that is, electricity given from half an hour to an hour daily."

In the new dispensary, which is one of the most up-to-date and modern structures of its kind in the world, rooms in the basement have been set aside for the manufacture of mechanical braces and other forms of instruments, and for experimental investigations in appliances. There will also be a shop for the manufacture of shoes for patients afflicted with painful and deformed feet. This is an essential feature in orthopedic work, as, by properly shoeing a large number of those afflicted, they are again enabled to resume their vocation and make a livelihood for themselves and family. It is the earnest hope of the directors of the hospital that ways and means may be found to equip and operate the brace shop, so that all of the worthy poor who apply may be given the shoes and braces required free of charge.

An assembly waiting room, with executive offices, a drug department, a suite of offices for the physician and surgeon-in-chief, and five rooms for the application of plaster, are on the first floor. The latter department is used for the correction of congenital dislocation of hips, bow legs, knock knees, paralytic distortions, and club feet.

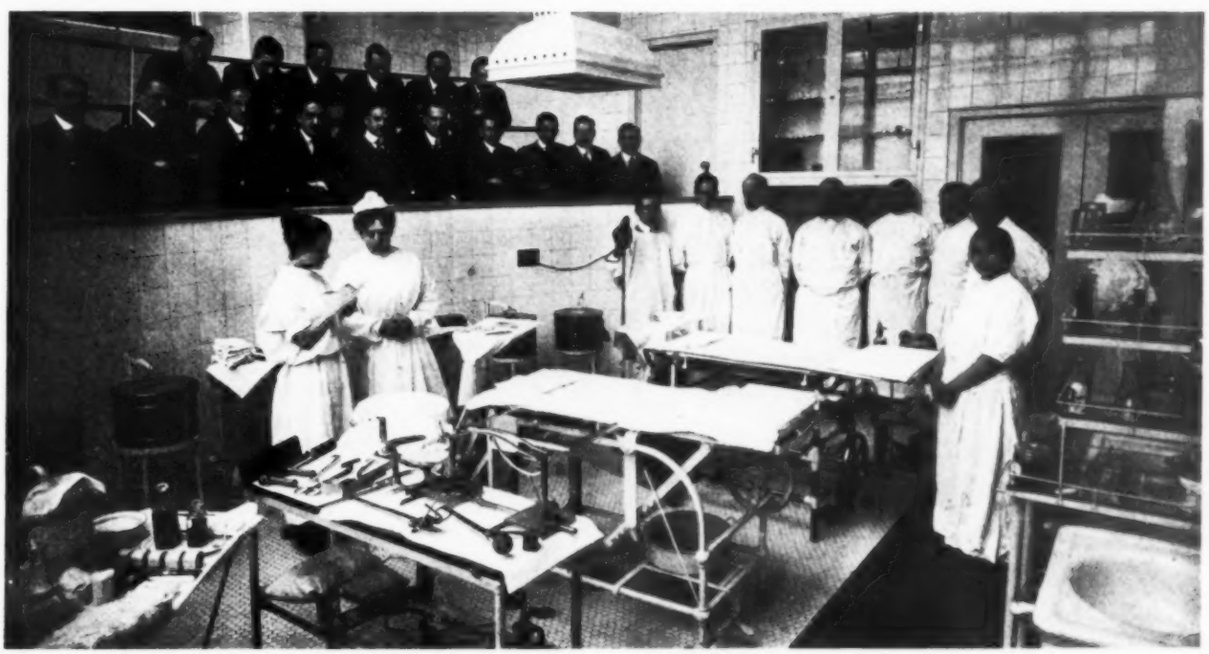

Fig. 4. Hospital for Deformities and Joint Diseases. Operating room. Note the two tables for simultaneous operations.

Fig. 5. Hospital for Deformities and Joint Diseases. Massage and electrical clinic of dispensary.

Separate rooms for the examination of patients are on the second floor, and here those afflicted with various types of joint diseases and needing the application of splints are given attention. Hundreds of children suffering with hip and spine diseases are in this way relieved of their suffering.

The third floor of the building is devoted to the treatment of the various types of infantile paralysis by means of massage and electricity. The rear portion of this floor is devoted to the massage of female adults.

On the fourth floor is the Zander apparatus for stiffened feet and joints. Men and women who were unable to get about from painful and flat feet have been cured by this means and again made useful members of society. There is also installed on this floor a Tyrnauer baking apparatus for the application of hot air to joints and muscles, which is an efficient adjunct to the treatment of muscular and articular rheumatism. There is a certain type of joint condition resulting from mouth infections, for the relief of which there has been provided a fully equipped dental department on the same floor.

On the fifth floor of the hospital there is a separate male and female division. Here the area is given up to two large gymnasiums, the walls of which are covered with mirrors to provide for the mental concentration on muscle effort. This department is one of the most important of the institution. Cases which do not require operation or apparatus for improving their deformities, but rather a course of training for the development of weakened muscles which tend toward bodily deformity, are treated here. The results have been so far superior to those obtained by any previous method of physical instruction that not only has it been the means of materially increasing the clinic, but has won recognition and approval by leading members of the profession who have had the opportunity of seeing the results obtained.

The sixth floor contains a splendidly equipped chemical, bacteriological, and pathological suite of laboratories. This department is essential in obtaining the highest efficiency in differential diagnosis and treatment. On the rear portion of this floor is an amphitheater operating room, constructed on the most modern lines of aseptic surgery. In conjunction with it is a pus operating room, plaster room, anesthetizing room, and sterilizing room. There is also an x-ray and photographic department.

The founding of the institution reads like a romance. In the course of his remarks at the dedication of the new dispensary in November, 1914, Jacob H. Schiff said:

"It is a great satisfaction for me to be here today and look at this remarkable addition to the hospital—the new dispensary. On inquiry I have learned that this institution dates back to the establishment of the Frauenthal Clinic some ten years ago at No. 558 Lexington avenue, when Dr. Henry W. Frauenthal, in conjunction with his brother, Dr. Herman C. Frauenthal, and several other physicians, established a dispensary for the treatment of deformities and joint diseases.

"A year later sufficient funds were raised to purchase one of the houses here on Madison avenue, and on October 11, 1905, the first charter for the Hospital for Deformities and Joint Diseases was granted by the State Board of Charities. After another six months the directors found the demand for clinical attention and beds so great that, through the display of great energy and efficiency, sufficient funds were raised to purchase an adjacent house on Madison avenue and enlarge the facilities. Attendance at the clinic increased so rapidly that the purchase of another house was soon necessary. This was done in 1910, after which the three houses were converted into the present hospital building. Yet in another year the dispensary attendance had grown so that funds were sought and obtained for the purchase and erection of this new dispensary at Nos. 41-43 East One Hundred and Twenty-third street, which today is being dedicated to its purposes.

"Furthermore, from 1,212 cases who received 9,471

treatments in 1907, the work of the dispensary and hospital has grown many hundredfold and continues to increase at a rapid rate. I am also told that this is the only institution which accepts hospital cases from birth to 4 years of age and adults over 16 years. During the last seven years 18 percent were under 4 years of age, and 54 percent over the top limit of 16 years, thus showing that 72 percent of the work carried on in this institution is done by no other orthopedic hospital in the city. Certainly it is really a great distinction.

"The clinical attendance has reached 475 patients daily at this time, and this new dispensary gives adequate facilities for the treatment of 600 patients a day. Just consider what that means! The care of dispensary patients

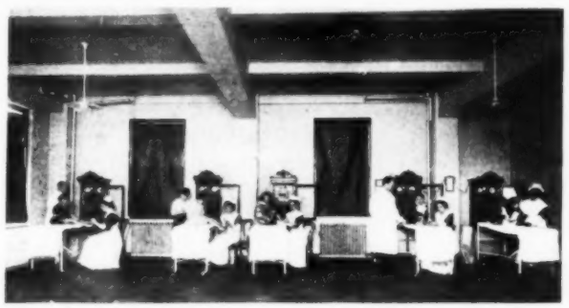

Fig. 6. Hospital for Deformities and Joint Diseases. Dispensary. The application of galvanic, faradic, and sinusoidal currents for various types of children's paralysis, given under the supervision of two attending physicians.

requires the services of 40 medical assistants, 26 masseurs and masseuses, 9 physical culture teachers, and 8 nurses. I do not know this from personal investigation, but I am sure my information is correct.

"This is, as you see, a significant work of no mean proportions, and we can only admire the courage and persistence of Dr. Henry W. Frauenthal and the trustees of this wonderful hospital. In the face of many obstacles they have made it possible from very small beginnings, not very many years ago, to develop here a great institution, sending succor and new hope to a class of sufferers in our midst who, without the scientific treatment they can secure here, would likely remain a burden to themselves and an expense to the community for their lifetime; but who, when leaving here, become in most cases restored to lives of usefulness and satisfied existence."

ARCHITECTURE OF THE NEW DISPENSARY—BY MAX G. HEIDELBERG, ARCHITECT

The problem involved in the design of the dispensary for the Hospital for Deformities and Joint Diseases was to create a dispensary occupying a separate building, but connected by a bridge with the present hospital (in conjunction with which it is used), and also to keep in view its relation to the large hospital which it is proposed to erect in the near future.

Unlike most other orthopedic dispensaries, which occupy either the ground or basement floors of large institutions, this dispensary occupies an entire building from cellar to roof. It is the largest building used exclusively for an orthopedic dispensary in this country.

In approaching the problem of building the dispensary, the surgeon-in-chief, Dr. Henry W. Frauenthal, the board of directors and the architects, Max G. Heidelberg and E. Levy, appreciated at the outset that only by the most careful study of the most economical materials and space subdivision could a building large enough and adequate to the needs involved be constructed with the funds at their disposal. A study of many other hospital and institution buildings convinced them that a great deal of money is being wasted in useless expenditure on what might be termed the show points of a building—marble in unnecsary places, ineffective ornament, waste space, unnecessarily expensive and elaborate mechanical equipment, useless ventilation schemes, hardware and plumbing fixtures unnecessarily elaborate. These are some of the things that are put into a building to impress prospective donors and shed glory on the architects and institutional managers. The able and experienced business men who form the larger part of the board of directors of the hospital feel that a strictly practical, economical building makes a far deeper impression on those experienced in hospital work and also on the public, which is interested in this kind of philanthropy. An important factor that had to be considered was the large number of patients which the dispensary has to treat every day, for the nature of this dispensary work is such that the

Fig. 7. Hospital for Deformities and Joint Diseases. Dispensary. Electrical baking apparatus for chronic joint conditions.

patients return again and again for treatment, often for a period of over a year. Again, the nature of the treatment is such that there is an excessive amount of circulation of patients through the building, and the wear and tear upon the building is therefore well above the normal.

The dispensary is 39 feet wide and 90 feet deep, six stories and basement, and, besides a fire escape, stairs, and main stairs, it contains an elevator large enough to transport a patient on a

stretcher. The building is absolutely fireproof. Particular attention was paid to the use of the proper floor material, and, with the exception of the operation room, the floors throughout are of Kompolite, with sanitary base and rounded corners. Throughout the entire building iron hospital trim flush with the finished plaster has been used. The basement of the building contains the

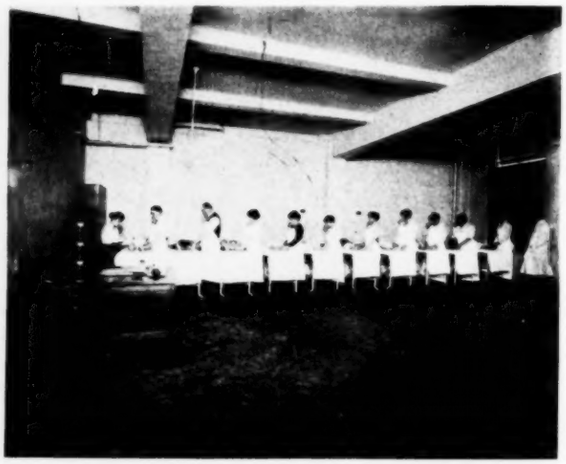

Fig. 8. Hospital for Deformities and Joint Diseases. Dispensary. The application of massage for various types of birth and acquired paralysis.

necessary engine and boiler room, large storage room, room for the storage and making of plaster for the cast work, and in the rear a well-lighted and fully equipped machine and brace shop, and a shoe shop and leather working room. The building has windows on three sides, and has no artificial ventilation plant.

A well-heated lobby gives entrance to the main waiting room on the first floor. This lobby is an essential appendage to a waiting hall, where there is a constant flow, in and out, of patients. In the center of this room, and controlling by its position both the entrance door and the elevator, is a small office where all patients, both incoming and outgoing, are checked, and passed on to the proper clinical rooms. At the rear of this floor is a large examination room, divided by high marble partitions into a series of smaller examination rooms, each of which has an entirely separate window to provide for properly controlled ventilation. On this floor there is also a drug dispensing room, and small suite of offices for the chief surgeon. Care has been taken to have all marble partitions on legs and free from the floor.

On the second floor the entire front portion of the building is devoted to the examination room for female patients. This large room has been divided by marble partitions into six smaller examination rooms of this kind, each with a separate window for the proper control of the ventilation in this cubicle. A unique device for examination rooms of this kind is properly designed hardware, so that a physician on the outside of the room can determine whether the room is being occupied without opening the door. In direct conjunction with the series of smaller examination rooms is a surgical dressing room, a doctor's office, a general utility room, and toilet. The same scheme exactly has been adopted at the rear of this floor for the examination of male patients. A small isolation room has been found convenient for temporary isolation in case a patient is found to have a contagious disease.

The third floor contains in the rear a room about 40 by 40 feet, which is used as a waiting room for children who are to be given massage and electrical treatment. A women's and children's toilet, a doctor's office, and a general utility room complete the third floor. Special attention was given to the design of the equipment in the

Fig. 9. Hospital for Deformities and Joint Diseases. Dispensary. Dental department for the cleaning of teeth and clearing up of focal infections in the gums producing joint manifestations.

utility rooms, which is uniform throughout the entire building, the shelving, cabinets, fixtures, etc., being designed to meet the special requirements of orthopedic work.

The front portion of the fourth floor contains a room about 50 by 30 feet, which is used for joint and foot treatment, and attention was given that proper wall space was found for the installation of the large amount of apparatus. A surgical dressing room, doctor's office, utility room, and women's toilet are connected with it. The rear is used for the same purpose for men. Connecting

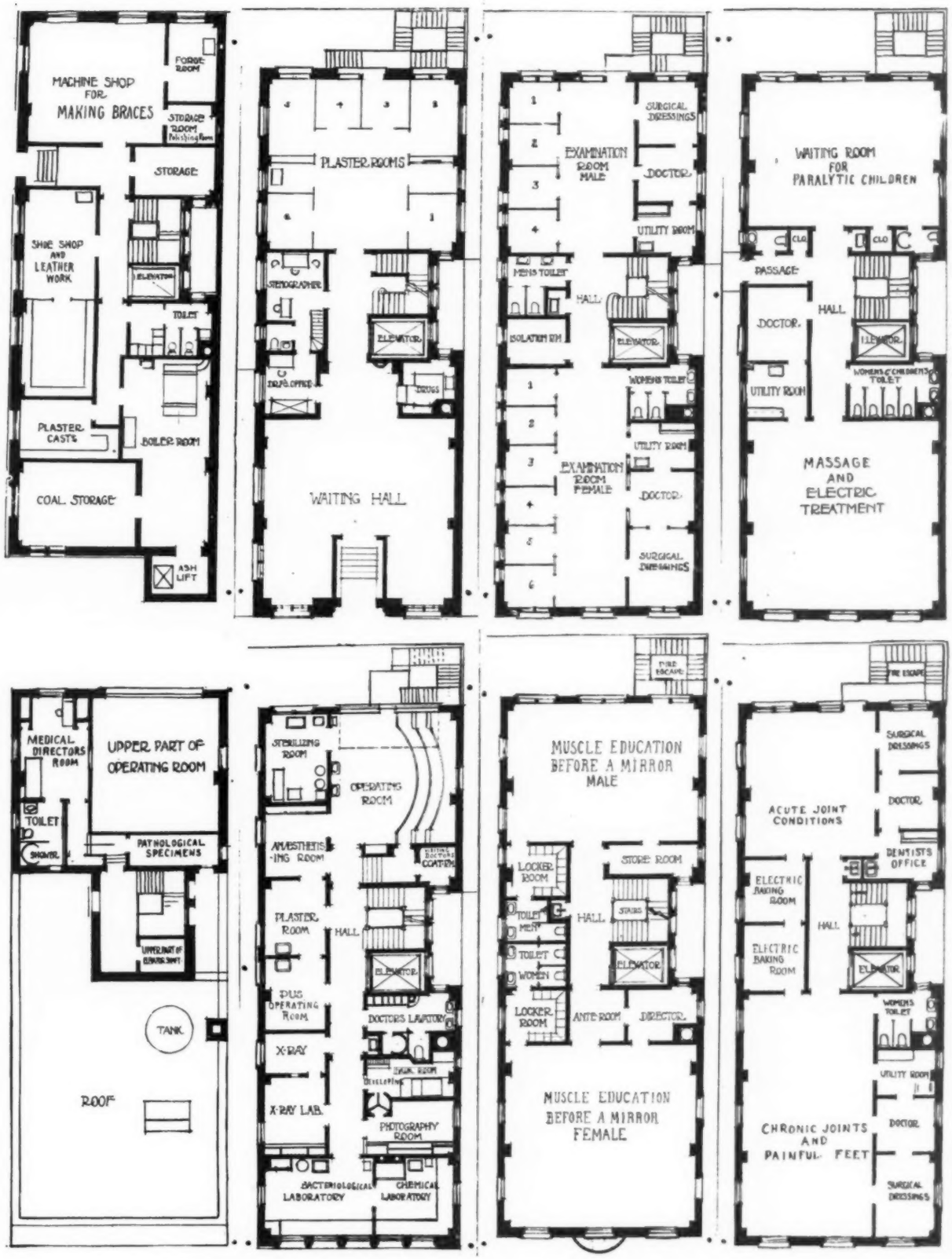

Fig. 10. Hospital for Deformities and Joint Diseases. Floor plans of dispensaries.

with each of these larger rooms is a smaller room containing the electrical ovens used in the foot treatment. A completely equipped dental office is also installed on this floor.

The entire fifth floor is devoted to the two gymnasiums, which are really rooms for muscle education—the front portion for females and the rear portion for males. Particular attention has been

paid to the ventilation of these rooms, and both of them have windows on three sides. Adjoining each of these rooms is a locker room, equipped with steel sanitary lockers, toilets, and dressing rooms. A large storage room and physical director's office complete this floor.

The top floor, in large part, is devoted to the main operating room and auxiliaries. In the front portion of this floor is a completely equipped chemical and bacteriological laboratory, containing the necessary hoods, ovens, sinks, etc. The x-ray department, one of the most important departments, contains an x-ray room, with an x-ray laboratory adjoining it and divided from it by a door with lead glass, so that the patient may be photographed from the laboratory without the operator coming in contact with the x-ray. There is a completely equipped dark room and photography room. The dark room can be reached from the photographer's room by a small three-leaf revolving door, which permits the photographer to go freely from one room to the other without allowing any light getting into the dark room. The revolving door has proved a very successful and unique device. The operating room takes up the entire rear portion of the floor, the penthouse forming the upper part of the operating room, which is really two stories high. In the penthouse is the medical director's room, with a large plate-glass window, and through this window there is an unobstructed view of everything that is being done in the operating room. The operating room contains a gallery for visiting surgeons and students, and the room is so planned that it can be reached without spectators going into the operating room or coming in any way in contact with it. The operating room is so arranged that two operations can be carried on simultaneously without in any way interfering with each other. This has been achieved by means of a double equipment. The room has tile floor and has tile walls from floor to ceiling. Instrument cases are built flush with the tiling. Next to the operating room is the sterilizing room. A suction fan has been installed in this room and has proven very successful and eliminates the objectionable condensation due to the steam which is usually found in sterilizing rooms. On this floor there is also an anesthetizing room, a separate room for plaster operations, which it is not advisable to carry on in the general operating room, and a small operation room for pus cases.

A careful comparison has been made of the cost of construction of this dispensary with other buildings of a similar type, and it has been found that the building has been built and equipped at the very minimum cost per cubic foot, and at the same time, I believe, a careful examination of this building and equipment will prove that no necessary element has been omitted, and nothing has been sacrificed which would impair its value as a working institution.

SOLVING THE PROBLEM OF THE HIGH COST OF LIVING IN THE HOSPITAL

Louisville City Hospital Plans Retrenchment in Supplies—Economy in Use of Drugs, Gauze, Laundry, and Food Stuffs—Practical Methods of Saving

By J. W. FOWLER, M. D., Superintendent

THE fiscal year of the city of Louisville, Kentucky, for 1916-1917, began September 1, and the annual appropriations for the various departments of the city government were made by the general council to cover one year. The appropriation for maintaining the City Hospital, a purely charitable institution with no income, was $165,000. This sum was based on our estimate as to the approximate cost of maintaining all the departments of the hospital for twelve months. At the end of October we found that, on account of the advance in price of everything used in the hospital, our expenditures were exceeding the appropriation by $2,000 per month. If this deficit continued throughout the year, we would be $24,000 short with no apparent means of meeting the deficit. In this dilemma we reported the facts to the Board of Public Safety, who are the governing body of the hospital, with the statement that we would either have to have a larger appropriation or else make heroic sacrifices in order to make both ends meet.

The board authorized us to formulate such plans as would be possible and practical in retrenching expenses in all departments of the City Hospital. To this end we called the heads of all the departments in consultation and formulated the following plans for curtailing expenses.

MEDICAL AND SURGICAL STAFF ECONOMIES

It was decided that the surgical department be required to use the utmost economy in the use of surgical dressings, gauze, cotton, plaster, catgut and alcohol. The co-operation of all the staff was urged to cut down the number of hospital days of patients at the hospital, getting patients out

of the hospital as soon as possible, utilizing the cooperation of the district nurses' social service department to this end. It was recommended that the prescriptions, wherever possible, be in drop doses, and the amount lowered to one-half; that prescriptions given in teaspoonful doses be lowered to 3 ounces; that the number of powders be lowered to twenty, and wherever possible, less than these maximum amounts should be ordered.

During the present high cost of drugs, only the following vaccines and antitoxins are to be used: diphtheria and tetanus antitoxins, typhoid, gonococcus and smallpox vaccine and Flexner's antimeningitis serum; where possible, in chronic cases, autogenous vaccines to be made in the laboratory. Expensive and fancy drugs are to be limited as much as possible in both in-patient and out-patient departments. The following list of drugs is included: pituitrin, adrenalin chlorid, potassium-iodid, balsam of Peru, phenacetin, guaiacol, salol, sodium benzoate, aspirin, creosotal carbonate, theobromin, sodium salicylate and carbolic acid. The members of the staff were urged to confine their use of drugs to those that are well established and essential to the patients' welfare, until such time as the cost of drugs is less.

THE HOSPITAL MATRON'S ECONOMIES

To economize in gauze a central supply station was established, and the gauze supply issued from this point upon properly signed requisition. Each ward requiring gauze or dressings of any kind should be supplied according to the number of patients receiving surgical dressings. For instance, it is an absolute waste to send dressings sufficient for ten patients when dressings for only three are required; the gauze thus acquired is in nearly every instance misappropriated. On account of this surplus on hand, it was freely given patients, some using it for handkerchiefs and as rags for general cleaning purposes, and on many of the wards it was used for penwipers, instrument cleaning, etc. In no case should patients be given gauze at any time for any purpose. Gauze not under lock and key is often carried away by students, nurses and other employees to their rooms for future use.

Further gauze economy would result from using the old dressings, the best of which could be sent to the laundry, carefully washed, and taken through a thorough process of sterilization and issued to wards to be used again and again.

For freely discharging abdominal, rectal and other similar wounds a dressing known as a "pad" is made by wrapping a square of absorbent cotton in a single piece of gauze, thereby taking the place of seven or eight rolls of gauze.

Doctors and nurses in almost every instance use gauze too extravagantly in receiving and preparing emergency cases for wards even though they know that the instant the patient reaches the ward these dressings will be removed and destroyed. In receiving and preparing these cases for the wards, washed gauze could be used; it would give exactly the same results, and would mean a saving of from ten to possibly fifteen rolls of gauze in this one particular case.

All gauze is to be cut in uniform lengths. When a piece or roll of new clean gauze falls to the floor in the dressing room or at the bedside, this does not, or should not, by any means necessitate its being thrown away.

Further economies in the matron's department are: gathering soap scraps, melting them into a jelly soap and using for cleaning, etc.; substituting non-absorbent cotton, in every case in which it can be used with safety, for the more expensive grade of absorbent cotton carried in stock in the drug department; encouraging care of linen and mending it at first sign of wear; mending and darning every article; making crib sheets and spreads out of the best part of condemned sheets and spreads; cutting all towels a trifle shorter, and thereby cutting from eight to ten more towels out of each bolt; substituting 7 by 4 sheeting for the 8 by 4 sheeting, and using tape cut from condemned articles for mending purposes.

ECONOMY IN THE LAUNDRY

Ten thousand pieces of laundry were being turned out daily. This expense was cut down one-fourth in the following manner:

1. By requesting the nurses to keep within the limit as to their personal wearing apparel, which was very largely exceeded.
2. The rule that all bed linens on the ward should be changed daily was modified to read: "Change when necessary."
3. The bedspreads, which had been left on the beds at night, were ordered folded and put in the chair at the foot of the beds, thus obviating the necessity of their being washed so often.
4. Officers, interns and employees were required to be more sparing in the use of towels, sheets, etc.

By saving one quart of liquid soap in each machine full of soiled linen, at the end of the day's work we save 5 gallons of liquid soap or 3 pounds of raw soap, making a total saving for the month of 75 pounds of raw soap.

In connection with the soap we were using 18

pounds of soda a day; we have cut this amount to 12 pounds a day, a saving of 6 pounds a day, or 150 pounds a month. We used bluing once a week, and are now using it once a month with good results. Instead of using hot water for the first rinsing of clothes, we are now using hot and cold, making a saving of 3,000 gallons of hot water a day, and a reduction in candle-power of 600 watts a day.

ECONOMY IN THE STEWARD'S DEPARTMENT

Milk is not to be served as a beverage in the dining room of officers, interns, nurses and help, but for cereals and coffee only. Chicken is to be served for meals less often and the number of times eggs are served at meals is to be reduced. Eggs are not to be served to patients for dinner, as hot soup, vegetables and meat are sufficient; also butter is to be eliminated in all departments for dinner for the same reason. One kind of fruit only is to be ordered, instead of three, each week, oranges being served one meal, bananas the next, etc.

CHEF'S QUOTA

Steaks.—We use none but the best top sirloin and tenderloin. The trimmings we use for hash, stew and hamburg meat. Bones are saved for making stock for broth and gravy. Fat is rendered for frying purposes.

Roast Beef.—We use only choice ribs; the short ribs, or ends, and platter are used the same as the steak trimmings.

Pork.—We use only loins. The backbone is to be cut out and saved to season turnips and parsnips. Trimmings of pork chops are used for the same purpose.

Ham.—Choice No. 1 is used. The skin and bone are to be saved for seasoning greens, string beans, lima and navy beans.

Breakfast Bacon.—Trimmings from this are used for the same purpose. Bacon grease is used for making corn-bread.

Buttermilk and soda are used for griddle cakes, biscuits and corn-bread.

For chicken broth and soup we use only trimmings. Chicken is used cold or in other ways.

We save all the trimmings of grease and fry it out for frying purposes.

The potato clippings are used in the boiler room for cleaning out boilers to a good advantage.

ECONOMY IN THE PHARMACY

In the drug department all preparations such as tinctures, fluid extracts, ointments, disinfectants and special formulas are made from the crude drugs and chemicals where assaying is not required to determine their potency.

The waste of such articles as adhesive plaster, cotton and alcohol, is reduced to a minimum by placing proper restriction upon their use.

All disinfectants, mice, roach and ant exterminators are manufactured in the pharmacy, thus saving the profit made by dealers.

The use of whisky for medical purposes will be reduced from twelve to three barrels per year.

ECONOMY IN THE LABORATORY

In the laboratories formaldehyde and alcohol, after being used for primary purposes, are filtered and used secondarily for cleansing and disinfecting purposes.

Glass slides are cleaned and used over and over. Old gauze received about surgical specimens, if not infected, is washed and used for cleaning purposes.

All media, vaccines and reagents for serological tests, etc., formerly purchased at exorbitant prices, are made in the laboratory by the staff.

Instruments are kept in repair by the diener, instead of being sent out to a machine shop.

CONCLUSIONS

In making a careful survey of the various departments, we find that while many things have advanced enormously, and the use of a few are prohibited by the high cost, the general increase in prices has been approximately 30 percent.

By the systematic plan outlined we shall save a large amount, but perhaps not enough to meet the apparent deficiency, and in that case must rely upon the Board of Public Safety to come to our aid.

We confidently hope that, of the many thousand readers of THE MODERN HOSPITAL, some will give us the benefit of their views upon the subject of retrenchment in a subsequent issue.

School Clinic for Subnormal Children

Subnormal and defective children in the schools of Berkeley, Cal., are to be studied in a new clinic at the Berkeley Dispensary, in charge of Dr. Olga Bridgman, of the University of California. Dr. Bridgman is to work in cooperation with the teachers in the schools throughout the city. It is the intention to segregate in special classes children who do not measure up to normal standards by the Binet-Simon and other tests.

Miss Mary C. Fellows, formerly superintendent of the City Hospital, Washington, Pa., has been engaged by the Board of Directors of the Oil City General Hospital, Oil City, Pa., as superintendent of the latter institution, succeeding Miss Emma Keating, resigned.

GELATIN AND JELLY POWDERS[1]

Their Composition and Character—Gelatin Useful as a Protein-Sparer—Jelly Powders an Uneconomical Source of Cane Sugar

By JOHN PHILLIPS STREET, Chemist Connecticut Agricultural Experiment Station, New Haven, Conn.

IT is somewhat difficult to draw a distinct line of demarcation between gelatin and glue. They differ chiefly in the care employed in their manufacture. Both are produced by treating the collagens of bones, tendons, cartilage, etc., with boiling water. Speaking somewhat broadly, glue is an impure, dark-colored, low-grade gelatin, usually containing more or less chondrin, gelatoses, gelatones, and other impurities. Gelatin, on the other hand, is distinguished from glue by its purity, light color, clearness, and high jelly strength. The same raw materials may yield either glue or gelatin, depending chiefly on the skill and care used by the manufacturer.

In brief, in the manufacture of these products the raw materials, after being cleaned and "plumped," are acted upon by boiling water or steam. The fatty matters occurring in the resultant liquor are removed by skimming, and the solution is bleached, clarified, filtered, and evaporated, and then drawn off into pans, or on cooled slabs, where it sets into a jelly.

Bones, sinews, cartilage, skins, and hides are the chief sources of glue and gelatin. It is often erroneously stated that glue is made from bones and hoofs; as a matter of fact, these materials consist largely of keratin and yield no glue. The bony support of the horn, or hornpith, however, yields a specially fine gelatin. By certain authorities it is claimed that the difference between gelatin and glue lies in the relative amounts of glutin and glutose in each. Glutin is the gelatinizing constituent of gelatin, the best product containing the highest proportion. On the other hand, glutin in glue is a detriment to its adhesive power.

The connective tissues of young animals are especially rich sources of gelatin-yielding material. Calves' feet are particularly valuable for this purpose, but perhaps the purest form of all is isinglass, which is derived from the swimming bladder of fish, especially the sturgeon.

Not only must a distinction be made between gelatin and glue, but technical gelatin and food gelatin must be recognized as quite different products. Technical gelatin, as its name implies, is used in various manufacturing processes, such as stiffening straw hats, finishing curtains, photographic emulsions, hectograph base, etc. Gelatins of this kind generally contain a preservative of some sort. Food gelatin, on the other hand, should consist only of clean, high-grade gelatin free from all harmful substances, and should be properly made under sanitary conditions from carefully selected raw materials. Purity, color, clearness, and jelly strength are characteristics of a good food gelatin.

The essential characters of a good gelatin for food purposes are expressed in another way by Parry (Food and Drugs, 1, 414):

"1. When soaked in cold water for four hours, and then made into a jelly by heating with water, it should yield no offensive odor.

"2. If in aqueous solution it yields an appreciable precipitate with solutions of alum, lead acetate, or ferric chlorid, it is of inferior quality, containing an excess of chondrin, due to the decomposition of hyaline cartilage.

"3. The ash should contain no heavy metals, such as copper, sometimes present to the extent of one gram per pound, and not more than 10 parts of iron per 100,000.

"4. It should not contain more than 5 parts of sulphurous anhydrid per 100,000."

Parry's specifications suggest the presence of certain mineral impurities which may have an important effect on the healthfulness of the gelatin. Such impurities as sulphurous acid, arsenic, copper, and zinc have been frequently found.

Gelatin formerly was quite generally treated with sulphurous anhydrid for antiseptic or bleaching purposes. If care was not taken in the selection of the stock and in its subsequent treatment, very appreciable amounts of this preservative might be found in the finished product. On the other hand, if careful manufacturing methods are followed, the amounts may be kept so low as to be negligible. Leffmann and LaWall (*Analyst*, 1911, 36, 271) have shown that in 86 samples from one factory only two contained more than 50 parts of sulphurous anhydrid per million, and 6 of the remainder not over 15 parts; 18 contained but traces, and most of the remainder less than 10 parts, far below Parry's requirements. Two samples, however, from another source, inferior in appearance and somewhat offensive in odor, contained 305 and 331 parts per million.

Padé (*Ann. chim. anal. appl.*, 1908, 13, 299) found in 100 samples from 0 to 7 grams per kilo. McGill (*Can. Int. Rev. Bull.*, 273, 1914) found in 161 samples sulphurous anhydrid ranging from a trace to 1,090 parts per million.

[1]This is one of a series of papers on Foods and Food Constituents. These papers appear monthly.

Apparently this acid is not used as commonly today as in the past. Certain data of Poetschke (*Jour. Ind. Eng. Chem.*, 1913, 5, 980) illustrate this point very clearly. The samples examined in his laboratory over a period of several years may be classified as follows:

In 1907 20 percent of samples showed less than 100 parts per million.

In 1907 35 percent of samples showed more than 500 parts per million.

In 1908 61 percent of samples showed less than 100 parts per million.

In 1908 21 percent of samples showed more than 500 parts per million.

In 1911 88 percent of samples showed less than 100 parts per million.

In 1911 36 percent of samples showed more than 500 parts per million.

From the foregoing data it is evident that there is no excuse for more than almost inappreciable amounts of sulphurous acid in a gelatin carefully made from good material. As to other mineral impurities, data are not so abundant, but it may be said that in most edible gelatins offered for home consumption they are relatively of rare occurrence. Hart, however (*Seventh Internat. Cong. Appl. Chem.*) reports copper up to 56.3 milligrams per kilo, while Kopké (*Arb. kais. Gesundheitsamte*, 1911, 38, 290) reports that of 12 samples of commercial gelatin 8 contained appreciable amounts of arsenic, ranging from 5 to 30 parts per million, the other four containing mere traces. The United States Government notes two instances, both the product of the same manufacturer, in which 14 and 13 parts, respectively, of arsenic per million were found. In the former sample 230 parts of zinc per million were also present. (*Notices of Judgment*, 2295 and 2629.)

Such impurities as these, of course, should not exist, and manufacturers should make every effort to so improve their processes as to eliminate them from the finished product. The presence of arsenic may be accounted for by the fact that the gelatin is often prepared from hide and leather residues, which have been treated with lime and arsenical preparations, or from bones which have been extracted with mineral acids containing arsenic as an impurity. The sulphurous acid used for bleaching is likewise not always free from arsenic.

Gelatin is used extensively in jellies, jams, candy, ice cream, various dessert preparations, and in many dishes intended for the sick and convalescing. It is important, therefore, not only to keep in mind the possible existence of mineral impurities and the possibility of the product having more the qualities of a glue than of a food gelatin, but also to recognize clearly the limitations of gelatin as a food product.

Gelatin is very easily digested in the stomach, and has the advantage of fixing considerable acid during the digestion process. It is accordingly of service in cases of hypersecretion of acid in the stomach. Gelatin, however, does not build tissue, and is in no sense a true substitute for protein. It is as a sparer of protein that its importance in the diet is shown. It is probably the most efficient protein-sparer known, being able to save from destruction about half its weight of protein. In estimating its value, however, as an ordinary food even in this direction, it must not be overlooked that even those subsisting chiefly on an animal diet do not consume more than 10 to 12 percent of their total nitrogen in the form of gelatin, and that probably not more than from 25 to 30 grams of the latter can be taken with convenience per day. Its usefulness in the diet, therefore, is restricted, for even as much as a quart of jelly would be able to spare the protein of only 2½ ounces of meat. In the diet of the convalescent, however, jellies are of service, but their nutritive value depends mainly on the sugar they contain and not on the gelatin. This is more apparent when one considers that a 1 percent solution of gelatin sets, and that the ordinary strength of jellies is 1 ounce of gelatin to the quart (a 2 percent solution), showing how little gelatin actually is present in ordinary jellies.

The United States definition and standard for gelatin states that it "is the purified, dried, inodorous product of the hydrolysis, by treatment with boiling water, of certain tissues, as skin, ligaments, and bones, from sound animals, and contains not more than 2 percent of ash and not less than 15 percent of nitrogen."

These two criteria, ash and nitrogen, are of considerable value in determining the quality of a gelatin, although, of course, the bacterial content and the amount of mineral impurities present are of even more importance. It may be said, however, that, generally speaking, the uses to which gelatin is put in the household necessitate a highly refined product, and a gelatin generating an unpleasant odor on cooking would at once demonstrate its unfitness for culinary purposes. Similarly with regard to mineral impurities, with the exception of sulphurous acid, which is gradually being almost completely eliminated from gelatin, the commercial brands offered for use in the home may be used, as a rule, with a feeling of complete safety. It is the product offered in bulk to the wholesale food producer that is more likely to approach glue in character and to contain mineral contamination.

The following table shows more or less complete analyses of 21 brands examined in the writer's laboratory. As indicated above, the percentages of ash and nitrogen give no definite information as to the source of the gelatin. A high ash, however, indicates an imperfect method of manufacture, and a low nitrogen suggests an impure article. All the brands in the table, except one, practically satisfy the standard's requirement as regards nitrogen, the deficient brand containing about 16 percent of sugar. Five of the brands contain more than the 2 percent ash of the standard, in one brand this ingredient amounting to as much as 3.20 percent.

TABLE I. ANALYSES OF GELATINS

BRAND	Water	Ash	Gelatin (N x 5.55)	Undetermined	Total nitrogen
Adams' Refined Sparkling	13.90	1.98	83.58	0.54	15.06
Bakers' Calves' Foot	12.26	1.70	84.25	1.79	15.18
Chalmer's Transparent	14.18	1.75	84.80	* 0.73	15.28
Cooper's (Peter), clarified	13.30	2.55	83.03	1.12	14.96
Cox's Instant, powdered	13.81	1.80	84.36	0.03	15.20
Crystal	12.09	1.18	85.36	1.37	15.38
Essex 5 XIC	.....	1.44	85.80	.....	15.46
Flag Brand Calves' Foot	12.05	3.20	83.69	1.06	15.08
Grandmother's A. & P.	12.63	1.95	84.58	0.84	15.24
Hughes' No. 1, granulated	.....	1.75	83.25	.....	15.00
Hughes' No. 2	.....	2.37	84.58	.....	15.24
Keystone Silver White	12.35	2.50	84.25	0.90	15.18
Kingery's Crystal Flake	.....	1.72	83.92	.....	15.12
Knox's No. 1 Sparkling Calves' Head	13.75	1.77	84.69	* 0.21	15.26
Milligan & Higgins'	.....	0.95	85.45	.....	15.40
Minute, plain	10.05	0.80	72.83	†16.32	13.12
Star Brand Calves' Foot	14.70	1.40	83.14	0.76	14.98
Swampscott Sparkling	13.15	1.60	83.69	1.56	15.08
Walker's, granulated	11.06	1.35	87.02	0.57	15.68
White Rose Brand	14.50	2.23	82.97	0.30	14.95
Williams' Sparkling, ground	13.41	1.12	85.14	0.33	15.34

*Ingredients as determined exceed 100 percent by this amount.
†Largely sugar.

The cost of the various brands is well worthy of consideration. The familiar commercial brands are generally offered in packages containing from 1 to 2 ounces at prices ranging from 5 to 15 cents, so that the gelatin actually costs from 2.4 to 12.9 cents per ounce, certainly a very wide range in price.

JELLY POWDERS

These preparations are widely used as quickly and easily prepared desserts. They consist chiefly of cane sugar, with sufficient gelatin to make a jelly, and are variously flavored and colored to simulate the flavor and color of natural fruits. With hardly an exception, their compound nature is more or less clearly indicated on the package label. It should be clearly understood that certain so-called fruit extracts, like banana, pineapple, raspberry, and strawberry, are usually synthetic, and therefore the consumer, in using jelly powders and similarly flavored products bearing the names of these flavors, should not be misled into believing that the genuine fruit flavor is being supplied in all cases.

In Table II are given the results of two inspections of these powders conducted by the writer. In several instances it will be seen that in the period between the two inspections the manufacturers improved their product by using a vegetable color instead of a coal-tar dye, and in the case of one manufacturer in both his raspberry and strawberry powder the natural flavor was substituted for the synthetic. It is possible further improvements may have been made in the last few years, and for that reason the table supplies the date of analysis in order that it may be clearly understood that the data given apply only to the product as offered at that particular time.

Entirely aside from the use of artificial color and flavor in these powders, the consumer should

TABLE II. ANALYSES OF JELLY POWDERS

Date of analysis	BRAND	Water	Ash	Gelatin (N x 5.55)	Cane sugar	Undetermined	Color	Flavor
1909	Bromangelon, strawberry	1.40	0.20	7.77	90.63	.....	†	.....
1909	Burnham's Jellycon, lemon	1.46	0.17	8.33	90.08	*0.04	‡	.....
1909	D-Zerta, raspberry	2.55	0.30	11.99	85.36	*0.20	‡	.....
1909	Gelver, lemon	2.16	0.20	7.77	88.45	1.42	O. K.	.....
1909	Grandmother's A. & P., strawberry	1.17	0.25	7.22	90.99	0.37	§	.....
1909	Hoope's, strawberry	1.97	0.35	9.44	84.97	3.27	§	.....
1913	Jell-O, chery	.....	.....	.....	.....	.....	¶	‡
1913	Jell-O, coffee	.....	.....	.....	.....	.....	O. K.	O. K.
1913	Jell-O, lemon	.....	.....	.....	.....	.....	**	O. K.
1913	Jell-O, orange	.....	.....	.....	.....	.....	†	O. K.
1909	Jell-O, raspberry	1.95	0.30	12.43	86.40	*1.08	‡	.....
1913	Jell-O, raspberry	.....	.....	.....	.....	.....	¶	‡
1913	Jell-O, strawberry	.....	.....	.....	.....	.....	†	‡
1909	Mohican, orange	1.25	0.18	6.22	92.57	*0.22	§	.....
1909	Plymouth Rock, coffee	2.00	0.90	13.54	80.81	2.75	††	.....
1913	Tryphosa, chocolate	.....	.....	.....	.....	.....	O. K.	O. K.
1913	Tryphosa, peach	.....	.....	.....	.....	.....	**	‡
1913	Tryphosa, pineapple	.....	.....	.....	.....	.....	**	O. K.
1909	Tryphosa, raspberry	1.14	0.13	5.77	92.80	0.16	§	.....
1913	Tryphosa, raspberry	.....	.....	.....	.....	.....	¶	O. K.
1909	Tryphosa, strawberry	0.92	0.20	5.55	92.87	0.46	§	.....
1913	Tryphosa, strawberry	.....	.....	.....	.....	.....	§	O. K.
1913	Tryphosa, terpeneless lemon	.....	.....	.....	.....	.....	**	O. K.
1913	Tryphosa, terpeneless orange	.....	.....	.....	.....	.....	**	O. K.
1913	Tryphosa, vanilla	.....	.....	.....	.....	.....	**	O. K.
1913	Tryphosa, wild cherry	.....	.....	.....	.....	.....	§	‡
1909	White Rose, raspberry	1.57	0.10	6.22	91.44	0.67	§	.....

*Ingredients as determined exceed 100 percent by this amount. †Cochineal. ‡Artificial. §Coal-tar. ¶Cudbear. **Vegetable. ††Caramel.

realize the exact nature of products of this character. As stated previously, they are simply mixtures of cane sugar and gelatin, generally about 9 parts of the former to 1 part of gelatin. In the light of this fact, it is obvious that the consumer pays a very high price for sugar when purchased in this guise—on the average about 22 cents per pound. The convenience of such preparations is beyond question, but, if one wishes to use material of this nature in making desserts, economy would suggest the purchase of pulverized gelatin, to which flavoring and sweetening might be added at will. There is no mystery in the compounding of these powders.

WORK OF THE DETROIT RECEIVING HOSPITAL

A Medical and Surgical Clearing House That Has Found an Important Place as a Social Agency—Some of the Emergency Cases

By JOHN DRETZKA, M. D., Medical Superintendent and Resident Surgeon

THE needs of a growing metropolis, which have outstripped its hospital facilities and have taxed the resources of private and public institutions as rapidly as they have been expanded, called for a Receiving Hospital in Detroit. The hospital, opened on October 12, 1915, has been utilized to the utmost every hour. The cases admitted are divided into five classes:

1. Public charges, unable to meet the expenses of treatment anywhere. These are sent in by order of the city physicians.
2. Psychopathic, including insane patients and advanced alcoholics and drug addicts, for which other hospitals have no accommodations.
3. Workmen's compensation cases.
4. Police cases, including the victims of assault and accidents and those held as prisoners and witnesses who are in need of hospital care.
5. Private patients, confined to a small number of disturbed psychopathic or other patients which hospitals generally are unable to receive.

The Receiving Hospital is distinctly an emergency hospital and in every sense a clearing house. It affords prompt treatment for the great volume of cases arising as a result of poverty, crime, vice, and casualties of a city. As rapidly as cases are admitted, they come under the supervision of the Social Service Department and of the hospital inspector. Psychopathic patients, if not cleared up and discharged at once, are held until committed to asylums or until their legal residence is determined. The victims of industrial accidents, coming under the state compensation act, are removed to whatever hospital they or their employers decide on. For the few private patients admitted a fixed charge covering expenses is levied. City patients include every sort of surgical and medical case demanding immediate hospital treatment.

The Social Service Department concerns itself with every patient on admission. This department gathers all the information possible from the victims of accidents or sudden illness, and notifies friends and relatives. When the patient is able to be discharged, a systematic endeavor is made to find employment for him, or, if he is not self-supporting, the case is referred to the proper organization for giving aid. The hospital inspector ascertains what cases are properly public charges, and recommends the removal as soon as feasible of all that are able to pay for hospital treatment. When contagious diseases are encountered the patient is quickly removed to a city hospital under the direction of the Board of Health.

The admissions for an average month will approximate 800, of which 60 percent are emergency cases. The steady influx of traffic accident victims forms the largest single class of surgical patients. In addition to those that are transferred to other hospitals after first aid is administered, a large number of patients are removed or sent to their homes after minor wounds or injuries are treated. Of this class those unable to pay for their treatment will return for dressings and other needed treatment as members of the out-patient section. About 600 out-patients are cared for in a month, making a total of 1,400 patients coming within the Receiving Hospital's scope of usefulness every thirty days.

The enforcement of the Harrison Drug Act threw on the community a large number of drug addicts, for whom no relief is available unless they can afford private treatment. Some of these are brought to the Receiving Hospital's psychopathic department, and others come of their own accord. When the patient's willingness to cooperate is demonstrated, a modified Towns-Lambert treatment is administered and a gratifying number of cures have been achieved.

Some venereal patients also apply for treatment. When a patient is found to be unable to pay, he is treated without charge, or, when it is determined that his means are adequate, he is required to pay for the materials used. Salvarsan injections are made under this policy if it is

positive that the patient would otherwise go without treatment because of his inability to pay even the most reasonable charges of a private practitioner.

Every effort is made to send patients out with a fresh grip on life, and there is nothing of the "charity" atmosphere in the hospital. All cases receive the same degree of interest and attention from admission to discharge. After a patient is registered, his clothing is removed to the laundry and disinfecting department in the hospital basement. If necessary, all garments are fumigated thoroughly. Washable clothing is laundered and other articles are cleaned and pressed. A staff of six resident physicians cares for all surgical and medical cases, and the cooperation of Detroit specialists has been obtained whenever needed in consultation. Thirty-three nurses, all graduates, are residents of the hospital and a social service director is on duty constantly. Two ambulances are operated from the hospital garage.

Present demands on the hospital indicate that additions to the present plant will soon be called for. The Receiving Hospital more than fulfills the intentions of those who brought about its establishment in that it affords prompt treatment for a large class of patients who formerly were apportioned by the poor commissioners, the Police Department, and Probate Court among hospitals which were constrained to receive them, no matter how they might interfere with the pressing claims of the regular hospital work.

NEW RECEPTION BUILDING OF HOSPITAL FOR INSANE, BROCKVILLE, ONT.

Recoverable Patients Are to Have the Benefit of Every Modern Convenience and Latest Apparatus—The Plans and Some Principles in Architecture

By J. C. MITCHELL, M. D., Medical Superintendent

THE new reception hospital in connection with the Eastern Hospital, Brockville, was opened on August 16, 1916. This hospital, which is built of brick, three stories high, is admirably situated about midway between the Prescott Road and the main building of the institution. Nature has supplied a beautiful setting for it, as it is placed in a grove of trees and has a splendid outlook on the St. Lawrence river. It is intended to accommodate 60 patients, 30 of each sex. Every comfort and convenience known to the science of mental healing have been carefully considered in the planning of this structure. In addition to four solariums, four large verandas have been provided, where the patients will be treated with Nature's own healers—fresh air and sunshine. These verandas have been provided with closed windows for winter, so that they can be used at all seasons of the year. Beds have been supplied with special rollers, so that the nurses can move even the weakest of patients onto the verandas without any disturbance.

Fig. 1. Hospital for the Insane, Brockville, Ont. General view of new reception building.

The main floor of the hospital contains the doctor's office and dispensary, the head nurse's suite of rooms, the diet kitchens, which are fitted with every modern and labor-saving device, and the wards and special bath rooms and lavatories are all tiled and fitted up in the most modern manner.

On the second floor are the resident physician's apartments (the assistant superintendent, Dr. Geo. C. Kidd), patients' wards and private rooms, attendants' quarters, also spray bath, bath rooms, etc.

The third floor is fitted up with nurses' quarters, storage rooms for patients' clothing, and the operating room, which has in connection with it sterilizing, anesthetic, doctors' and nurses' rooms. All fittings are of the most modern type, and it is one of the best operating rooms to be found east of Toronto.

The basement contains the boilers for heating water, electric motors for the operation of the elevator, which works automatically by the key method; also the electric ventilating system, which is very complete, changing the air in the whole building in a very short time by means of fans, one placed in the basement and the other at the top of the building. The hospital is to be heated from the central heating plant.

An electric lift is provided for conveying food from the kitchens to the second floor, where food wagons are provided to transfer it when required to the pleasant dining rooms located on this floor. A noticeable feature of this building is the homelike atmosphere that permeates into every nook and corner. The grounds surrounding the hospital are being laid out in terraces, and, in a short time, will be transformed into a bower of flowers and shrubbery.

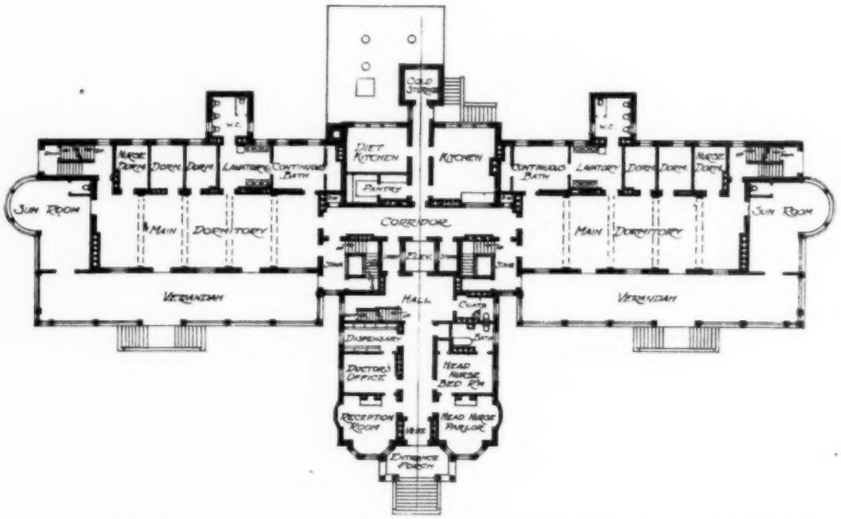

Fig. 2. Hospital for the Insane, Brockville, Ont. First floor plan of new reception building.

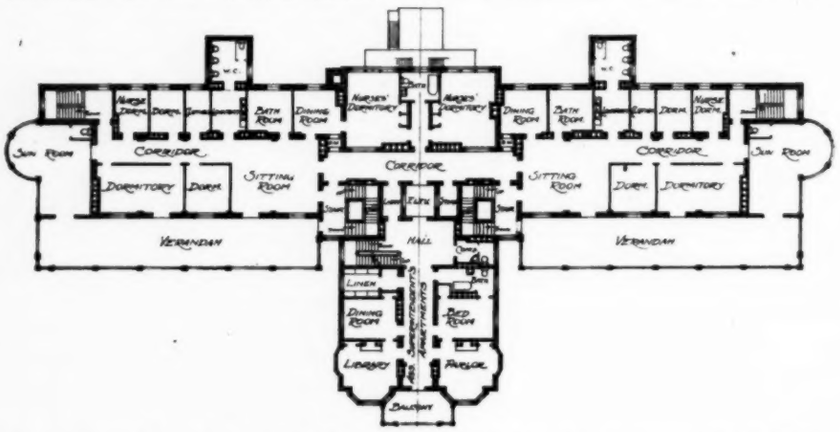

Fig. 3. Hospital for the Insane, Brockville, Ont. Second floor plan of new reception building.

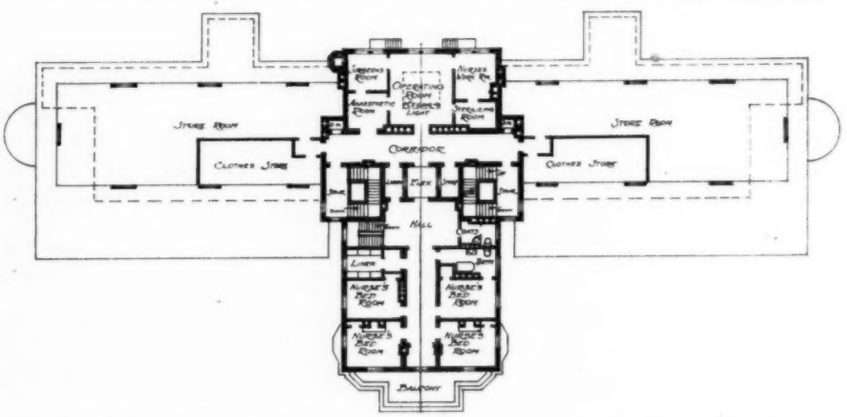

Fig. 4. Hospital for the Insane, Brockville, Ont. Third floor plan of new reception building.

The building is intended to be used entirely for the treatment and care of recoverable patients. Continuous baths, with other hydrotherapeutic equipment and massage tables, are being provided, so that nothing will be left undone which will give the patient an opportunity to make a recovery. The entire equipment of the building, with few exceptions, was manufactured at the Ontario Reformatory, Guelph, Ontario.

Traveling Dispensaries in India

Traveling dispensaries have been instituted in the United Provinces of India to combat plague, which seems to have become permanently domiciled there. The death totals have ranged, during thirteen years, from a minimum of 13,814 to a maximum of 354,285. The number of plague deaths for the year running from July, 1915, to June, 1916, reported on by the inspector general of civil hospitals of the United Provinces, Col. C. Mactaggart, was 35,929. The various measures employed under the direction of Rai Bahadur Kanonji Lal, chief plague officer, included the evacuation of infected premises, the systematic destruction of rats, preventive inoculations, etc., and also the organization of forty provincial and forty-seven district traveling dispensaries. These dispensaries have not confined their work to plague alone. Nearly a million patients have been treated, and over forty thousand inoculations have been performed. Inoculation is reported to be popular.

Dr. Edward C. Galsgie has recently opened a private sanatorium at Reno, Nev.

HOSPITAL SURVEY OF A COMMUNITY

Preliminary to Building—Factors to Be Considered—Extent and Prospects of the Population—Types of Construction Dependent on Local Conditions

By JOSEPH J. WEBER, Executive Secretary, Committee on Hospitals, N. Y. State Charities Aid Association

BROADLY speaking, there are just two ways of doing any specific piece of work: the haphazard, higglety-pigglety, inefficient way, and the orderly, scientific, efficient way. This is as true of the building of hospitals as of any other project. Heretofore, and in an appallingly large number of instances still, whenever any individual or group of individuals, representing private or public interests, builds a hospital, the initial approach to the problem is such as to lead inevitably to the building of a hospital that cannot be run efficiently or produce 100 percent results. The hospital is built, and. its location, size, facilities, type, and cost of construction are often determined by the wish of some wealthy individual, by the predilections of some prominent physician or surgeon, by the apparent demand for increased hospital facilities, or by the pride of a community and its unwillingness to let a rival community seem to surpass it in the care of the sick.

To this unscientific method of approach in so important a problem there have been, to my knowledge, some notable exceptions in New York State, and, I doubt not, elsewhere. When in Tonawanda in 1912, Poughkeepsie in 1913, and, more recently, Washington county, the question of increasing the hospital facilities was raised, a thoroughgoing, detailed preliminary study was made to determine whether these communities actually needed additional hospitals, and, if so, what should be their exact location, size, and facilities. The question was settled, not as is so often the case, by the wishes or whims of an individual, or by guesses based on superficial indications, but by an orderly, thoroughgoing, scientific study of actual hospital needs, based on factors that will be set forth presently.

The complicated conditions that prevail, particularly in communities in which hospitals already exist, often make it impossible to act fully upon the findings of a scientific study; but the preliminary survey indicates that an honest, conscientious effort is made to get at certain information basic to the building of a hospital which is to render efficient service, and of which, on the one hand, the facilities will not be found inadequate, and, on the other, will not, so to speak, glut the hospital market with an unnecessary number of beds.

In making a preliminary survey, first to be inquired into is the broad question of the facilities actually needed for general medical and surgical service. This question naturally raises the further question as to what facilities for general medical and surgical cases already exist in the community. Are these facilities effectively managed and readily available? If so, it would be foolish and wasteful to duplicate them.

A study should be made of the extent of the population, its growth over a five-decade period as a means of estimating its probable future growth, and the movement or shifting of population, as, for example, from one part of a county to another. A study of the character of the population will be helpful in enabling one to determine the use that will be made of the hospital when built, and how to distribute the beds as between wards and private rooms. Ultimately education will lead those who need hospital care to avail themselves of it gladly and without fear, but it is a well-known fact that certain foreign groups still stand in dread of hospitals and will not willingly go to them. Where the population of a county is constituted mainly of the poor or people of very limited incomes, a greater demand will, of course, be made upon ward facilities than upon private rooms.

A further factor in determining the facilities needed is the number of sick who will require hospital care. In a community which has no hospital facilities, one help in determining this factor is to find out the number of patients that were sent from the community to available hospitals outside. This is to be determined either by a personal visit to these hospitals or by sending them a questionnaire on which they are asked to indicate not only the number of patients, but also their addresses, the length of their stay, and the general nature of their disease.

Further help may be secured by determining the ratio of beds to population, as indicated by the experience of other communities of similar size and composition. An illustration of this may be found in the very helpful table of the ratio of beds to population in the smaller cities of New York State, which constitutes Appendix 2 of the State Charities Aid Association's report on "A City Hospital in the Tonawandas."

A third help, not so easily secured, is the percentage of the sick who actually go to hospitals, taken in relation to the number of sick who should go to hospitals either because of the complex

nature of their disease, its contagious character, or home conditions inimical to adequate care. In a house-to-house inquiry which was made in an East Side and a West Side district of New York city in the spring of 1913, under the direction of Mr. Henry C. Wright, director of the Committee on Inquiry appointed by the Board of Estimate and Apportionment of New York city, it was found that 10 percent of the people who had been sick in these districts received hospital care, the remaining 90 percent being cared for in their own homes. The study of "Sickness in Dutchess County, Its Extent, Care and Prevention," which was made by the State Charities Aid Association in 1913, also showed that 10 percent of the 1,600 patients studied received hospital care. Some attempt was made to arrive at the percentage of patients who should have gone to hospitals in order to receive adequate care. The figure arrived at was 27 percent.

If the community is wholly or in part an industrial community, some study should be made of its industrial activities, with special reference to the number and kind of accidents and the number and kind of industrial disease cases.

Although the information may be used only in part, or used in the construction of special hospital facilities, a study should also be made of the facilities needed for special classes of cases. One should determine what has been the experience of the community as to the number, character, and disposition of various special types of diseases, as that experience has been determined by local conditions. The experience of other communities as to the disposition of various special types of diseases should also be given consideration. It would be well also to look up the judgment of leading authorities as to the ratios of beds to population for special types of cases, such as tuberculosis, other contagious diseases, inebriety, and mental derangement.

Not to be neglected, of course, is a study of the nursing service of the community and its bearing on the care of the sick in their own homes, so far as the nature of the disease and the conditions of the home will permit. This has a direct bearing on the hospital beds required. If the home care of the sick is efficiently organized, a community will make fewer demands upon hospital beds.

After the facilities needed have thus, with some degree of thoroughness, been determined upon, the next fundamental question is that of location. This should be determined by the distribution and trend of population; and in larger geographical and political units, such as counties, not by the desire of a particular individual to grace his little hamlet with a hospital that will stand as a monument to his folly or the folly of his community, whose laws or indifference allow him to construct it, but by a painstaking study of the topography of the geographical unit to be served, its size, its railroad facilities, public highways, cost and time required to bring patients from various parts of the community to the hospital, the convenience of physicians, and the probable influence upon the number and character of its patients, of larger, better equipped and better manned hospitals that are available and yet outside of the community.

Another item that should be included in the preliminary study such as is here suggested, is the matter of type of construction. What are the best materials to use in view of their durability, cost, and the climatic conditions under which they will be expected to stand up? Are the climatic and other conditions such as to call for a hospital of one or more stories? Should the hospital be housed in one building or several pavilions? What is the best and most efficient arrangement of building in the light of the size and shape of the site, the service the hospital will be expected to render, and the convenience and comfort of the patients, doctors, and nurses?

Far too many are prone to forget, or at least not to consider until too late, that after a hospital has been built it must be not only maintained but also so well run, both from the medical and administrative standpoint, as to commend itself to the public as a desirable place to go to when hospital care is required. It will be well, therefore, to consider carefully the cost of maintaining the plant it is proposed to build. As in the case of an automobile, the initial cost is often the lesser cost. To this end one should look carefully into the cost of maintenance of other hospitals of like size, not forgetting to add to or subtract from the cost as local conditions may dictate.

The best type of organization of medical service has probably not yet been fully worked out. A number of experts are engaged in this important problem, and some satisfactory results have already been attained. Those about to face the responsibility of governing new hospitals will wish to give careful consideration to the organization of other hospitals of like size and character, and get the best available advice by employing a hospital consultant whose ability as an expert has been attested by experience.

In some instances the preliminary survey may include some consideration of the question of administrative control, and, possibly, needed special legislation. A county, for example, may require permission to build a general county hospital.

Any bill to be introduced into the legislature for this purpose should be drafted with great care.

In closing this article, let me express the hope that the time may quickly come when those who have money to give for hospital construction will, in increasing numbers, give their money for hospitals, the size, location and facilities of which will be determined solely by an impartial, thoroughgoing scientific study of what the community actually needs.

A SMALL COMMUNITY HOSPITAL THAT MEETS A NEED

Cottage Remodeled and Enlarged for First Unit—Appeal to the Public Has Brought Response—Some Details of Administration

By S. A. LUTGEN, M. D., Wayne, Neb.

EVERY community should have a proper place to care for its sick, especially when they must undergo surgical operations. It lessens not only the risk to life, but also the expense to the patient—that is, it gives special care, the use of all modern conveniences, laundry (bed linens), and proper food for practically the same cost as a trained nurse alone in the home. This need has been apparent here in our little western college town of 3,000 inhabitants for some time, but whenever the need was voiced we were told that it was customary to take such patients to one of the neighboring cities, one sixty, the other one hundred miles away. It was not until one of our most prominent and dearly beloved citizens was stricken with acute appendicitis and rushed via auto to the city sixty miles away, only to find a ruptured appendix caused from the rough trip and eventually death, that the community really awakened to the need of a local hospital.

Fig. 1. Wayne Hospital. General view.

Steps were at once taken to organize a stock company for the purpose of building a hospital. The plan was meeting with great success until a damper was put on it by the doubts expressed by the other doctors that it would never pay. As I was doing considerable operating myself, opening our residence to a number of patients whose homes were wholly unsuitable, I decided to risk the venture myself. I owned a small cottage, practically new, and standing by itself near the State Normal School. It was 28 by 28 feet and on a lot 75 by 150 feet. I visited all the smaller hospitals available, studied the plans in THE MODERN HOSPITAL, and finally presented to the public the Wayne Hospital as is pictured in the accompanying illustration. The old building was extended 22 feet, making it 28 by 50 feet, with full basement and attic. As will be seen in the plan, a hall runs through its entire length, opening on a large porch in front and a small sun porch in the rear (east). The south side of the hall opens into the five private rooms, while on the north side we have the reception room, nurse's room, bath room, stairway, sterilizing room, and operating room. The entire building is finished in yellow pine trim, two-panel doors, oak floors, and tinted walls. Each room is furnished with white steel beds and bedside tables, white maple dresser and chairs, and bedside rug to match the wall. The operating room is white enamel and tile, has built-in instrument cases, and is heated by steam from a coil in the Round Oak furnace, No. 28, which heats the rest of the building. It is lighted with 25-45 watt lights arranged in square in the center of the ceiling. The sterilizing room has built-in enameled instrument cases and cupboards for dressings, gowns, etc.

Before the furniture arrived I had to move in articles from our home and borrow cots from the furniture store to care for three emergency cases. Two of these cases were accidents, and proved to

the public the good of such an institution. The doubters are wholly convinced by now of the feasibility of the plan, as we have had from 6 to 8 patients nearly all of the time, thus having to use all the rooms, the reception room, and two in a room at times, the nurses having to sleep on cots entirely. We have two nurses all the time, and call in others when more help is needed.

Fig. 2. Wayne Hospital. Basement plan.

We have purchased the block just south of where the hospital now stands, and will erect a large building there very soon. The lots are very desirable for our purpose, as they have beautiful, large trees and shrubbery. We will close the alley and retain the present building as a nurses' cottage, using the operating room for nose and throat work. In my estimation, there can be no mistake made in venturing such an institution if the physician or one of the local physicians does surgery himself. The people desire to keep their loved ones near home, where they can see them, and the patients want to stay where their friends and family can call daily.

The Wayne Hospital has been from the very start a paying proposition. It has had 73 major operations, 134 minor operations, and 8 cases for only medical care during its existence, and up to date there have been no deaths. Five physicians from surrounding towns have sent patients, and three of the eight from our home town. That others will follow stands to reason, as we are

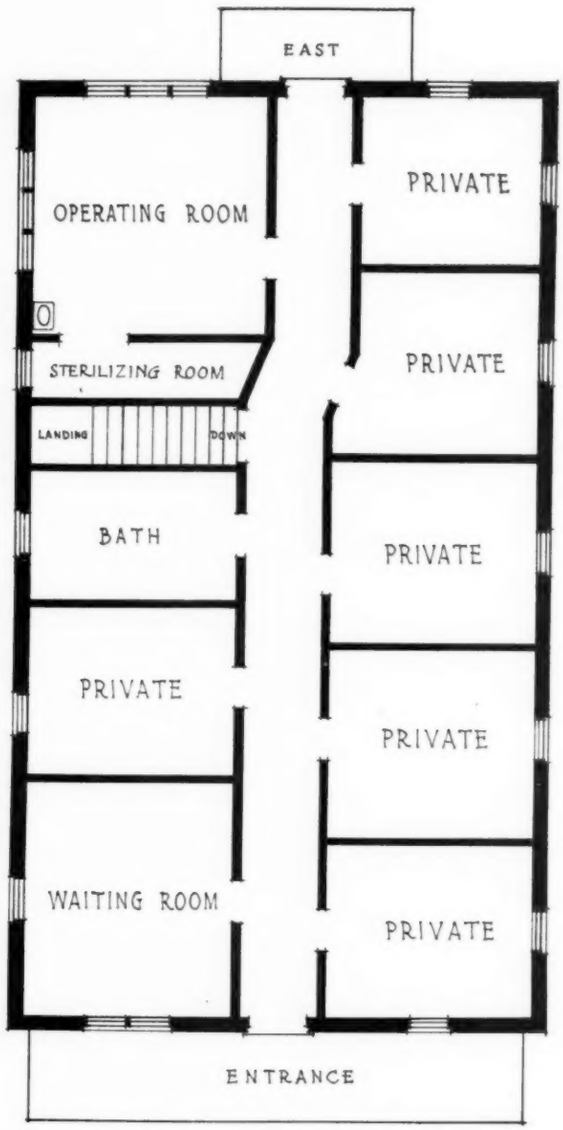

Fig. 3. Wayne Hospital. First floor plan.

treating all as we would be treated, have everything strictly modern, neat and clean, give the best service possible with only trained nurses employed, and, what is more, see to it that every patient goes away pleased and satisfied.

Driver's Nurses' Registry, Kansas City, Mo., has acquired a 70-room building, which it will equip for a hospital to be opened about February 1. The institution will be entirely under the control of the registry, no physician having any financial interest or any voice in the management. The house physician will be employed on a salary. Two main operating rooms and two rooms for minor operations will be provided. Mrs. Florence Driver Hoit is at the head of the registry.

THE SOCIOLOGICAL ASPECT OF THE TREATMENT OF ALCOHOLISM

Fallacy of the Belief That Alcoholism Is Hereditary—Help Effective Only for the Man Who Wants to Be Helped—Tobacco an Unfavorable Factor

By CHARLES B. TOWNS, Charles B. Towns Hospital, New York

THERE is no sick man who has had as little intelligent consideration shown him as the alcoholic, from the hospital, the medical or the sociological standpoint. He has been either damned for his vices or mourned over as a victim of some relentless fate; either coddled by friends or scolded by judges; and there has been poured into his ears the suggestion that alcoholism is a disease. In many instances those about him have been able to go back to the old family closet and haul out some alcoholic skeleton as the cause of his own drinking and as a "horrible example;" they have been able to load on him the belief that he inherited this vice from grandfather or great-grandfather or some other ancestor somewhere along the line who at one time or another took alcohol to excess.

Medical men have been largely responsible for making the alcoholic believe that alcoholism is a disease. Stop and think for a moment and you will see how absolutely absurd this is! The only extent to which a man can be alcoholically diseased is the extent to which he has been taking alcohol, in such quantities and with such regularity over a certain period that he has established a certain definite tolerance; and if he has been taking it in sufficient quantities, this tolerance would mean, in the end, that if he were suddenly deprived of his stimulant, delirium tremens and all of the unfavorable consequences that come out of that condition would result.

Now, delirium tremens is due to nothing more or less than alcoholic poisoning. If this man is medically unpoisoned, he cannot experience any such condition. Nor can the unpoisoned alcoholic have any physical or mental craving for alcohol. If he has been drinking moderately or periodically and the period of his present debauch is not too extended, it can be stopped without fear of any physical harm of any kind whatsoever. One of the most difficult ideas that I have to remove from the minds of alcoholics and their friends is this idea of inheritance. A man who has a poisoned father, a father whose system is thoroughly saturated with "booze" and tobacco, could and probably would inherit a defective nervous system. But he could not inherit a craving for drugs or drink. Get into the mind of the alcoholic just as soon as you can the fact that, no matter how much of alcoholic stimulants his ancestors may have drunk, it is impossible for him to inherit from them a craving for such.

The records of my hospital work show that where a patient with alcoholic history has been scientifically and medically treated for his habit, the definite removal of the craving for alcoholic stimulant is as effectual in his case as in the case of the patient who has no trace of alcoholic taint in his family. Further, I can show from our case records and clinical notes that in the cases in which such a patient through weakness relapses into taking stimulants, he never charges that the source of his weakness was a craving for them. The cause may have been psychic—business troubles, a quarrel with his wife or what not!—but it was not alcoholic craving as such.

Another important point is this: There is no such thing as "curing" a case of alcoholism. There is nothing on earth you can do to prevent any human being from taking up the use of alcohol again, if he wants to do so and will "go to it." There is no "cure;" and incidentally, one of the so-called alcoholic "cures" has abolished the word "cure" from its literature and now uses the word "treatment" instead. But this is since I began to treat alcoholism medically by modern hospital methods; so I feel that I am the man who has retired the word "cure" from business so far as it is connected with the treatment of alcoholics!

One of the several general classes of the near-alcoholic is that of the vagrant rich, while another is that of the vagrant poor. With the first class, money is no object; and so far as the cost of treatment goes, these people have no objection to relapsing again and again and being "treated" each time; and as for the second class, the vagrant poor, they have no financial means at all. But the man who is in a class of his own, who has lost self-control in the use of stimulants from work or worry or from some other equally effective cause, who makes his own terms at the hospital for his own treatment with money which he has himself earned—such a patient is a "preferred risk." He is the man we can really help because he wants to be helped.

Lack of occupation is the greatest destroyer of men, whether the man be with means or without means, and you cannot in the end expect to save either of these vagrant types—as I have called them—until successful occupation has been found

and responsibility in life has been created. As things go now, most alcoholics who receive medical treatment are left high and dry when the treatment is concluded. The man with means goes back to his old environment with nothing to do and falls back into old habits because they fit as comfortably as an old shoe. The man without means has already dissipated his resources and exhausted his credit before he realizes that drink is bad for him and that he must have medical help. He must have something to do; but any indiscriminate employment is not going to satisfy this man; and unless he is properly handled at this period you cannot hope to reclaim him. The man who has had a job and lost it on account of drink, but is perfectly willing to work again, would be a "preferred risk" of this class.

I always insist that the man who has no means, but is sent to me for treatment at the expense of somebody else, shall always pay for his treatment by some arrangement with his "backer;" that whenever it is possible he shall make the cost of his treatment a financial obligation and that when he begins to earn money, this money must by degrees be paid back to his friend. There is little good going to come out of believing that in trying to reclaim men of this type it is all-sufficient to run them through a medical mill and charge up to profit and loss whatever financial expense may be involved. You've got to go farther than that. You have not only got to *treat a patient,* but *deal with a man!* And if this isn't one of the big jobs for the American nation to tackle, I miss my guess! We have spent millions educating people to booze; how much are we willing to spend to show them how to live?

Most alcoholic patients need physical care and attention after their alcohol is eliminated. We find that, back of the taking of alcohol, there is usually a run-down, depleted nervous system, maybe with blood disease of some kind or with some other physical troubles. In every case there should be a most careful accounting of the whole physical man, and of the mental man as well. A man with an alcoholic history who is not yet physically able to work without feeling extreme fatigue should be carefully safeguarded. Unless he has genuinely made up his mind never to touch stimulants again, there is a possibility of relapse even although there would be no direct physical craving for alcoholic stimulants. Discouragement or weariness may "knock him out." Such patients should, if possible, avoid doing anything that would set up a nervous condition or that would for any reason make them feel they needed alcoholic stimulation.

I have found in handling this type of patient, that tobacco is one of the most unfavorable factors we have to contend with. This doesn't mean that every man who smokes is going to take to alcohol, but it does mean that a man who is predisposed to alcohol and who has an alcoholic history could not possibly do anything that would be so certain to establish a feeling of the need of alcoholic stimulant as to continue the use of tobacco. We try to change every man's mind who enters this hospital in regard to his use of tobacco, because in going over alcoholic histories for years back, we find that wherever we have been able to get a patient to give up his tobacco along with his alcohol—and the medical treatment which eliminates alcohol eliminates tobacco craving as well—we have always got a good case. I cannot now recall a relapse of any alcoholic patient who has given up his tobacco as well as his alcohol. To enforce this idea arbitrarily would be to create an impression of great hardship in the minds of the tobacco users who come to us. But to change a man's mind and get him to look on the use of tobacco as harmful establishes a mental condition which makes him feel he has not surrendered anything worth while and that he has won a big victory.

Now, as to the various classes of drinkers and the comparative possibilities of treating each of them successfully, I must in all frankness say that it has been my experience that the occasional drinker, the steady drinker, the social drinker or the still drinker—all these are practically in one class, as far as any reclamation is concerned. When the alcoholic patient is brought to my attention, one of the first things that enters my mind is whether or not the patient is worth while—whether or not there is anything to work with or we are going to have a big human cipher as the final result of our efforts. There are some of these alcoholics that none of us can ever do anything for. It is for this class only that any system of colonization should ever be permitted.

I am not a member of any organization of any kind, either religious or otherwise, that stands for prohibition. For that reason I am able to express myself as freely as I please. So I now want to put myself on record as saying the world would be better off if there was never another drop of alcoholic stimulant made, sold, administered or taken. I find only one class that doesn't agree with me, and that is composed of the distiller, the brewer, or the liquor dealer. It looks as if we are going to have world-wide prohibition; but unfortunately, as conditions now exist, the problem of dealing with the now-alcoholic is not going

to be solved merely by "prohibition." He is going to seek harmful stimulants in some way.

As every man who drinks to excess and is without a job for that reason is a social liability, I believe in starting a movement to save the drinking man worth while who still has a job. That means beginning with the employer and for the first time telling him what steps he ought to take when he finds one of his men has lost self-control from the use of alcoholic stimulant. I hope to create an interest among the social directors of big institutions that will enable them to do the best possible thing towards eliminating the alcoholic and alcoholic influences from among the employees of such corporations. There is no one greater economic waste among such corporations than the alcoholic waste. No employer is getting the best results from the alcoholic, whether he is wholly, or even partially, under the influence of alcohol or is merely experiencing the apparently slight effects of one drink.

What is needed is to make an intelligent disposition of the man who drinks. Start a campaign of education—not one of abuse, not one of penalization, not one that is going to create resentment, but a campaign of enlightenment. Then you are going to solve the problem among the better class of working men. The state and municipal authorities should deal with the alcoholic in a definite way. When they find a man who has an alcoholic history, a "drunk" or a "drinking man" who has been brought down and put out by alcohol, that man should be reclaimed, and it has been my experience, with few exceptions, that where the former employers of such a man are sure something definite has been done to put the man on his feet, they will give him a chance to make good.

Every able-bodied man who can work and won't work should be made to work; and the state and municipal authorities the country over should provide ways and means by which such men as these shall be forced to work and to work at something that is worth while. The only work that is worth while is the work by which a man profits financially. He is not going to work earnestly and honestly if he doesn't. If the state and municipal authorities could bring influence to bear on some of the heads of the leading industrial concerns and have them outline ways and means by which those men who now constitute human waste could be employed, it would mean the clearing up of the worst phase of this alcoholic situation in a very short time. Not only should these men be employed in work which would mean the making or manufacturing of something that was needed and was well worth while to the state—work which the man was also being reasonably paid for doing—but also there should be some way whereby those who had not been especially trained industrially could be taught some profitable trade.

The only way to begin to make the state and municipal authorities realize their responsibility fully in this matter is, so it seems to me, to pass such laws as shall for the first time require them to deal with this subject intelligently; to make the large municipalities establish each an alcoholic clearing-house; to make each state set aside one institution for the convenience of those who would not be eligible for treatment in the municipal institutions; to make an intelligent classification of all alcoholics and to outline to the different magistrates and police courts the proper course to pursue in dealing with alcoholics. The courts and the police should have definite instructions as to what disposition to make of this type of unfortunate. The wards of hospitals receiving such patients should in every instance avoid unnecessary colonization. There should be some means of identification of such cases in the public institutions and there should be a final disposition one way or another of the confirmed alcoholic. You will find, as I have pointed out in my previous articles, that the state and municipal authorities, with too few exceptions to mention, now have no concern whatever for the alcoholic patient. They don't know what on earth to do with him or for him—and they do it!

There is not going to be much satisfactory history written in dealing with the old alcoholic soak. Any progress toward real result on this subject is going to come from the younger class of human beings who do not know what the taste of an alcoholic drink means or personally what "drunk" means. I would like to see as a part of the curriculum of every public and private school in this country, enforced study of what drugs, alcohol, and tobacco really mean in their effects on the human system. I would not show any horrible pictures; I would just tell the plain story as it really is. The plain story is bad enough. Clean men and women who believe in the clean things of life should be the only ones eligible to teach such principles. Not until such education has been given will there be any real progress made in removing this curse.

There is no one greater waste of effort, time, and money than that of the charity organization societies which have to deal with the alcoholic problem in one way or another. There is less real intelligence displayed among them in trying to

solve some of the alcoholic problems that come before them than can possibly be excused. The friends of the individual are excusable in not knowing how to go about the best possible thing for the alcoholic; but organizations that have such problems before them daily, organizations that can check up the results of their dealing with the various problems coming before them have not, to my knowledge, improved in any way upon the old-time way of meeting this situation. The same conditions now exist in their dealing with this alcoholic problem that have existed as far back as we have any record. Those who believe that the paying of one or two weeks' room rent, providing an alcoholic's family with a few days' board, buying his children some needed clothes, exacting some promises from him as to his future behavior, is really "tackling" the alcoholic problem, are ninety-nine times out of a hundred promoting dissipation in the individual instead of really giving him some intelligent help. There is no greater economic problem for such organizations to take up and consider than the alcoholic one as it confronts them. I hope that they will soon begin a movement which will enable them to deal with its various phases with some degree of intelligence.

I cannot conclude this article without paying my respects to the federal Government in connection with this subject. I have been in position from time to time to observe the treatment accorded soldiers and sailors who have for any reason lost self-control from drink and drugs. A more heartless, cold-blooded, unreasonable lot for human beings never existed than in that dealt out as treatment by a system of court-martial! Nothing on earth is done to save the man that is worth while. Every step in such investigations is apparently taken with a view to destroy the man instead of to save him. There is meted out to him every possible penalty that could be inflicted that will destroy his self-respect, that will humiliate him to the very lowest possible depths; and he is never treated as a sick man. Nothing definite is done to give the soldier or sailor an honest chance to make good when he has made his mistake. If these unfortunates had the treatment and care that should be given them, if there could be a campaign of education among the men enlisted in the army and navy, what a difference there would be! The government prisons or insane asylums would have little to do. Where the man has made his mistake in the use of drink or drugs, if the first consideration were an intelligent one, taking proper medical and sociological means to reach the individual, the usual crops of the insane that have come out of this ignorance and carelessness would enormously lessen the commitments to government insane asylums.

If all who come in contact with the alcoholic would but realize that they are dealing with a sick man and that the alcoholic should be treated as such, that to be able to help him something definite must be done, that not only a complete physical change but a mental one as well must be brought about and that in most instances this change is only the beginning of help, they could in practically every instance carry the problem to a definite and successful solution.

I would like my medical friends to feel that they need not hesitate to call on me in connection with this problem. It is a never-ending subject; but I am sure there is something definite that can be done for practically any alcoholic who is worth while saving—something that will put an end to the problem of alcoholism so far as he is concerned.

PERIODICAL EXAMINATIONS NOW ROUTINE

New York Health Department Employees Find the Practice in Their Interest—Medical Advice Frequently Sought

For the past two years the New York City Department of Health has subjected its employees to an annual medical examination (optional in the case of older employees) in addition to the examination received on entrance to the department service. Male employees are examined by a male physician, female employees by a female physician. The physical record is not allowed to influence the efficiency rating of an employee. Antagonism toward the measure is said to have disappeared almost altogether, and some of the more enlightened employees, in whose cases more or less unsatisfactory conditions were discovered, have requested more frequent examinations. Up to the end of June, 1916, over 2,000 employees have been examined. Recommendations based on past experience are made in the Weekly Bulletin of the Department of Health as follows:

"Every employee, when absent from duty on account of illness, should be reexamined on return to duty. If absences are frequent, a reexamination should be made every three months, with a view to determining the cause of disability. Those who are below normal when first examined should be examined in six months' time.

"An employee desiring special medical advice should be made to feel that this is gladly given—that the object of the welfare division is to help keep the employees well, and that these medical attentions are not in any sense a philanthropy, but a very decided economy to the Health Department and to the taxpayer.

"When any particular kind of work is found to have an injurious effect upon the health of the employee, a change to some other kind of employment should be made.

"Periodical examinations can be made an important aid in correcting the alarming mortality of middle age in this country. If diseases are detected in their incipiency before impairment has become pronounced, and if the body is protected against possible injury by constant vigilance, a vast improvement would soon be effected.

"The example of the Health Department should be followed by all the City Departments, because of the economic value both to the employer and to the employed."

EMERGENCY HOSPITALS FOR INDUSTRIAL PLANTS

Evolution of the Idea—First Aid to the Injured a Saving to the Employer—Working of the Company Hospital

By L. L. WATTERS, M. D., New York

THE arguments in favor of the establishment of emergency hospitals in industrial plants have been so generally accepted during the past few years, that the necessity for repeating them hardly exists. The trend of industrial progress is more and more toward the partly voluntary and partly compulsory increase of the employer's interest in the employee's welfare. In addition to humanitarian considerations, there is a growing feeling among industrial managers that safeguarding the life and limb of the employee is a desirable thing from a purely business standpoint, particularly in those states in which special laws for the protection of employees have been passed. The use of so-called first-aid outfits for taking care of minor accidents has become so wide-spread that nearly every plant has one or more employees who are capable of intelligently taking care of minor injuries with excellent results. Even the smallest shop should maintain a small first-aid kit for this purpose.

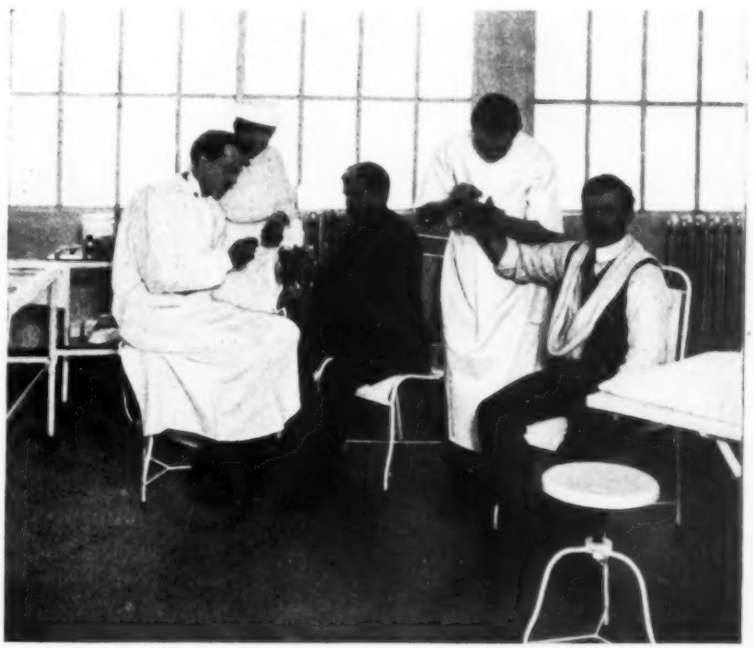

Fig. 1 Keeping the little hurts from growing big. The greatest benefit of the industrial hospital is in treating minor accidents and preventing them from becoming serious cases. At Bush Terminal, Brooklyn, most of the work is of this preventive nature.

Some of the larger plants have found that the call for first aid warranted setting aside a special room for this purpose. At first this was in charge of an untrained employee who performed this work in addition to his usual work, but later it was found desirable in many cases to employ a competent nurse who devoted her entire time to the work. Firms which adopted this plan also soon discovered that this nurse could render valuable assistance in connection with the social welfare of employees, especially the women, and this was the beginning of social welfare work. By gradual transition, there developed the idea of a permanent company physician who at first spent only part of his time and later all of his time within the walls of the plant. Generally the activities of the first-aid service came to the point where the company physician was devoting his entire time to the general welfare of the company's employees. In time there developed the idea of rest rooms, hospital rooms, visits of the company's physician to employees and their families, the establishment of cooperative welfare leagues among the employees, and finally the building of special company hospitals.

In the case of concerns employing up to two or three hundred operatives, it is possible to install so-called first-aid cases for the purpose of caring for minor injuries. The smallest of these consists of an enameled steel box containing generally a pair of scissors, a pair of forceps, an antiseptic solution, sterilized gauze pads, bandages, absorbent cotton, and one or two basins. Some employee perfects himself in the employment of these simple first-aid requirements so that he is able to attend to minor injuries and give first-aid treatment in case of major injuries. These cases sell for from $3.50 to $25 each; some of them are very complete and all of them are supplied with very excellent and simple instructions. In plants having in the neighborhood of 500 employees, it is desirable to set aside a special room for this purpose, or at least to have a section screened off where attention may be given with some degree of privacy. Here the first-aid case is more elaborate in design, being generally in form of a hanging wall case or a white enameled steel case on legs containing all of the required articles in addition to a couple of chairs, a plain

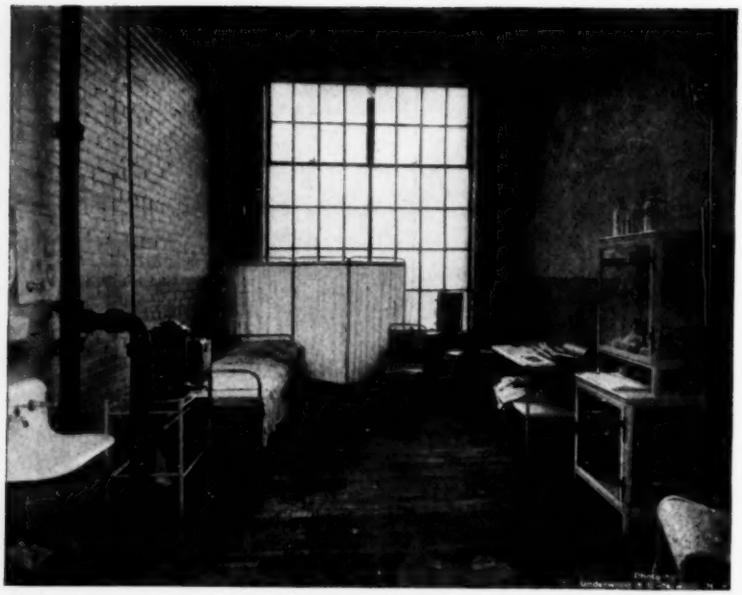

Fig. 2. The dispensary at the factory of the Frantz Premier Company, Cleveland. It is a small room and the equipment is not costly, yet in the first few weeks it paid for itself by taking care of a case that might have been very serious had the patient been compelled to wait for an ambulance from the hospital.

table and the necessary bowls and trays. In plants with several thousand employees, employing the exclusive services of a nurse, the equipment is as above stated with such additions as may be deemed desirable, and if a portion of the employees are women or girls, a rest room is often fitted up with one or more cots or beds. In plants which employ a permanent physician, or which receive regular daily calls from a physician, it is customary to set off one or two rooms in which are installed the usual equipment to be found in the dispensary rooms of hospitals or in physicians' offices. This equipment generally consists of the following articles: a simple examining and operating table, one or two steel stools, one or two chairs, an irrigating stand, one or two bowl stands, an instrument table, a table for dressings, an instrument cabinet, a cabinet for instruments and supplies and a carrying stretcher. Generally, also, there is a small sterilizer for instruments and one for water. Such plants are accustomed to secure their sterilized dressings either from a hospital or a dealer, but where the demand is great, the installation of a dressing sterilizer is called for. Such an installation is capable of finally caring for all minor injuries without outside aid.

The company hospital idea has long prevailed in the case of mining and other plants situated at a distance from hospital facilities. Some of them have attained to distinction as being among the best regulated hospitals in this country. An excellent example is the Minnequa Hospital, maintained by the Colorado Fuel and Iron Company at Pueblo, the various hospitals of Phelps, Dodge & Co. in the southwest, and those of the various copper companies in the Great Lakes region. These hospitals are complete in every respect, and provide the means of taking care of patients for long periods, if necessary. The cost of maintenance is sometimes borne by the company, but more often by voluntary contributions on the part of the employees. It might be stated, however, that most companies favor the idea of confining the use of their hospitals to the treatment and care of accidents occurring in their own works, and prefer to send cases of sickness to other institutions.

The feeling on the part of industrial managers is that it is desirable from many standpoints that employees should be cared for as much as possible within the limits of the plant itself, and that many of the legal complications which often arise from accidents can be obviated and the employee likewise brought to feel a closer and a more permanent attachment to the plant thereby. The many possible dangers which have resulted from

Fig. 3. Hospital at Bush Terminal, New York. This hospital takes care of all the employees of over 200 tenants at the Terminal city and is equipped for handling even serious surgical cases.

the employment of outside surgical help in case of accident among employees of large concerns are too well known to experienced managers to be stated here. The excitement, interruption of work and confusion which is commonly attendant

upon the call of an ambulance to a plant undoubtedly results in a considerable loss of productive time, and many managers insist that they can show an actual saving to the plant, by reason of their ability to promptly return employees to work, which compensates for the expense involved.

Fig. 4. Dispensary at Nela Park, Cleveland. One of the most remarkable industrial centers in America is Nela Park, the main establishment of the national group of incandescent electric lamp manufactories. Here, in a group of buildings that resemble a university, are executive offices, research laboratories, engineering departments, and manufacturing plant. The dispensary is an essential factor of the service department's equipment.

These points can be well illustrated by taking a typical example of actual happenings in a plant both before and after the establishment of an emergency hospital. This company employed over five thousand men, and at first had an arrangement with a local private hospital to take care of its employees on a contract basis. This hospital was situated at a distance of about three miles from the plant.

A report comes to the superintendent that John Jones had had his hand caught between gears and crushed it; the cries of the man at the time of the accident bring employees from every part of the plant, who rush in more from curiosity than from either desire or ability to render assistance. This confusion generally continues even after the arrival of the foreman or superintendent, who telephones to the local hospital for an ambulance and then proceeds to send the men back to their work, but who retains some four or five men until the ambulance arrives; this generally requires from fifteen minutes to one hour. In the meantime the attention of the employees is still centered on the injured man and continues even after the spectacular arrival and departure of the ambulance, which attracts the attention of by-standers to the plant. At the hospital the injured man receives the attention of a house surgeon, and from this time he is outside of the control or supervision of anyone connected with the plant. It is very seldom that the desire of either the employee or the hospital authorities is to return this man to his work short of the longest possible period; the reason of the man and the hospital is obvious and, likewise, the expense to the company.

Of course these conditions are somewhat modified in states which have passed laws covering such happenings, but even then many of the circumstances mentioned continue to exist. Contrast this scene with conditions as they actually exist in this plant since it has established its own hospital with its own nurse and physicians. It is thoroughly understood in the shops that in case of an accident the men shall stay with their work except those in the immediate vicinity and who are able and necessary to render assistance. A foreman is instructed to notify the physician or nurse at once and the physician or nurse is generally at the place of the accident in less than five minutes. There are men who are regularly designated to carry a stretcher, which is at a convenient location, to the place of the accident and immediately remove the injured man to the room provided for that purpose. Here he receives the prompt and satisfactory attention of a competent physician who has the interest of the plant at heart and whose aim is to return the man to work with as little excitement and as little delay as possible. These scenes are typical, and serve to explain the conditions discussed.

Fig. 5. Camp hospital at Association Island. This island, in Lake Ontario, is the summer meeting place of executive and sales forces of the incandescent electric lamp manufacturers. The camp hospital is complete in every detail.

THE SMALL COMMUNITY HOSPITAL—THE ORGANIZATION[1]

The Trustees and How Chosen—Mistakes to Avoid—The Administrative Offices—The Medical Staff—Principles Underlying Management of the Institution

By JOHN ALLAN HORNSBY, M. D.

PAPER VII

THE SMALL COMMUNITY HOSPITAL—ITS ORGANIZATION

THE organization of any hospital may be considered in three parts: (1) the trustees and the agencies that lead out from them as a connecting link between the institution and the community, (2) the administration, and (3) the medical staff, or, in the event that there is no staff, the medical men who care for the patients in the institution.

Perhaps the community as a whole must choose the trustees for its hospital, and, it may be by election. While we must all deplore the injection of politics into hospital work it will be necessary, in order to obtain a board of trustees likely to work in harmony and for the best interests of the hospital, for a very small group of people, or even one or two persons, to decide upon those best fitted for trusteeship, and after this decision has been made to try to get it carried out in any election that may be formally held. This procedure, which is a form of political caucus, is unavoidable because no board of trustees chosen haphazard, without previous conferences by a small group, in a public assemblage or at a public meeting, can be given that careful consideration that the conduct of so important an institution as the community hospital deserves. As a rule, a temporary board of trustees will already have been chosen for the raising of funds, the making of plans and the building of the hospital, and it may be that this temporary board will go over for the first year and that a plan of election of members will have been written into the constitution and by-laws of the institution that will provide for the annual election of a certain percentage of the trustees. Such a clause in the constitution should provide that not enough trustees shall be elected in any one or even two years to upset policies that have been agreed upon and found to work well by the first board: that is to say, if it shall be desired to have ten members of the board, it will be a good plan to provide for the election of two new members each year. For this purpose the first board will be divided into five parts, two of the members elected for one year, two of them for two years, and so on.

It has happened very frequently that a community or some influence in the community will become disgruntled with policies operating in the hospital and want to upset these policies; but it can also happen that these policies will have been decided on after very careful and intelligent consideration and it can happen that new members coming in, even elected by the influence of disgruntled citizens, will find after they have become familiar with the hospital that the policies that had given rise to dissatisfaction were wise and just and should be carried out. In such a case, if a majority of the board had been elected instead of only a few members, the majority might upset these wise policies to the great hurt of the institution and before the board had had time to see these measures at work. Trustees elected by disgruntled supporters of the institution have very frequently become the strongest supporters of policies against which they were sent in as trustees.

CHOICE OF BOARD MEMBERS

The first thing to think about in connection with the creation of a permanent board of trustees, and perhaps the most important thing, is the elimination of persons who will want or be able to use the hospital for their own private, selfish interests. Frequently some doctor will want his friends on the board with the intention to bring about conditions that will be favorable to him and his personal interests. To accede to this desire on the part of a medical man will be to invite disaster, because the most pernicious influence in any hospital is that of a physician who wants to use the institution for his private purposes as against the interests of all other physicians.

Another person to keep off the board is one connected with some commercial house that would obviously want to sell goods to the hospital. Sometimes this person will not be one of the heads of the commercial house, but perhaps a minor employee who has an idea that if he can get on the hospital board and bring the trade of the institution to the house with which he is con-

[1]This is the seventh in a series of papers by Dr. Hornsby on The Small Community Hospital, Its Funds, Its Planning, Its Architecture, Its Equipment, Its Organization, and Its Administration. Next month "The Hospital Employees, Including the Interns and Nurses."

nected it will become a distinct asset to him in his commercial and financial relations with the house.

If the board is selected before the hospital is built and before the site is purchased, it will frequently happen that some real estate man or property owner will want a place on the board in order to influence the selection of the site so that he may sell property to the hospital.

However sordid a consideration of these things may seem, experience throughout the country in the creation and operation of boards of trustees makes it necessary to eliminate people who have personal interests to serve.

The board member should be selected for some definite reason: (1) let us say, because he is a banker and will be a wise counselor in the financial operations of the institution; (2) at least one member should be thought of because of his knowledge of architecture and building operations; (3) one should be thought of because of his intimate knowledge of merchandising; (4) another because of his knowledge of the handling of people, in order that he may be a wise counselor concerning the employees and the adjustment of difficulties with them.

All the members should be selected because of their broad-mindedness and because of their ability to see things in a large perspective. It isn't the business of a board of trustees or any of its members to "run" the hospital in the details of its administration—that is for the superintendent and for his or her paid associates.

After the board is finally selected, it will be well to divide its members into working committees, or rather into advisory committees, because their work should always be advisory to the superintendent and the plan of operation should be for the superintendent to have access at all times to the chairmen of the various committees, for counsel and advice appertaining to things particularly coming within the jurisdiction of the committee. These committee members should have no power to give orders, else it will be quickly found that the superintendent is under the necessity to obey more than one master—which will be hazardous.

The board of trustees should meet sufficiently often to pass upon all questions of policy and along the lines of the broader aspects of administration; these meetings should be held at sufficiently short intervals for the superintendent to be able to bring his or her troubles to the board in session, in order that he or she may not have to take orders from individual members; and it should be understood that board meetings at stated intervals shall be a duty which the trustees are in bounden duty to respect and they should attend the meetings or get off the board and make way for others who can and will attend to the duties of trusteeship.

The success of a hospital, in very large measure, will depend on the character of the trustees, not because of the detail work that they will do, but because of their ability to judge of the work of their superintendent, and their capacity to refrain from meddling.

There is no particular reason why the board should consist of any special number of trustees. The condition in each community will guide in this matter, the only point being that no one should be a trustee of a hospital who has any personal interest to serve or who has not the time or the inclination to give attention to his duties. It will be found expedient and wise to have several women on the hospital board, but most women who have homes of their own and who are not familiar with the duties of trusteeship will be very likely to want to meddle with the domestic affairs of the institution. Such women should be kept off the board because they do not know hospital conditions; while they may be excellent buyers for their own homes and excellent housekeepers, they might be miserably poor judges of materials and fabrics best for institutional use, and even poorer judges as to domestic management.

THE SUPERINTENDENT

Although we talk about the want of standards in hospital management, some of the details of management are pretty well standardized. There is coming into existence a group of trained people for hospital superintendents, and the number is growing greater year by year, until now we have some pretty well-defined standards even for the selection of hospital superintendents; there are a few places in the country in which hospital superintendents are being carefully and painstakingly trained for definite careers in this work. Very frequently the trustees of small hospitals assume the attitude that their hospital is not large enough and that they cannot afford to pay a salary to justify their employing a trained man or woman. This is obviously a mistaken policy and is not warranted by experience or facts. An untrained person can be the most expensive item in the hospital management and cost more eventually than mistakes in any other direction. A good superintendent, even in a very small hospital, can save several times his or her salary by an intimate knowledge of hospital conditions and by familiarity with methods of buying and methods of using hospital commodities; moreover, an

untrained or improperly trained superintendent can play havoc with good service to the sick and thereby make the hospital so unpopular in the minds of the medical men in the community that they will be averse to sending their paying patients to the institution; whereas a properly trained superintendent will be able to do teamwork with the medical men, giving them what they want in the way of technic and service for their patients and thereby raising the standards of practice in the institution to such a point that the medical men of the community will make every exertion to get on the staff and to have their important patients go to that hospital. So any way one takes it, a properly trained superintendent who knows how to buy and how to use hospital property, and who knows how to serve the medical men whose patients he or she is caring for, will be the greatest asset the hospital can have, and such a superintendent, when employed, should be supported and let alone.

OTHER EMPLOYEES

Each hospital, small or large, will be a rule to itself as to the number of employees that it can advantageously use, and it will require the best tact and judgment and all the knowledge of a superintendent, coupled with wise counsel on the part of the members of the board, to distribute the work of the institution so that the smallest number of people will be able to do, not only the largest amount, but also the greatest variety of work. For instance, in the small hospital it will be impossible to think about employing an all-time radiographer, an all-time pharmacist, an all-time anesthetist and an all-time dietitian; and yet all these branches are of very great importance if the hospital is to give proper service to the sick under the orders of the physicians. The question then comes up, how can this be done? One hospital in the class we are now discussing had in the graduating class an exceptionally bright young woman of excellent preliminary training, who had developed great versatility in the course of her three years of training. She learned, among other things during her training, to conduct the pharmacy, and she did it well; she also spent a great deal of time in the laboratory under the direction of the pathologist who spent certain hours there, and she became a very good technician and was able at the time of her graduation to do most of the routine work of the laboratory. The same young woman also learned, during her rotation service as an operating room nurse, to give anesthetics and to give them well. After her graduation the board of trustees had the good sense to send this young woman away, paying her salary and expenses while she took work under good directors in pharmacy, in bacteriology and the technic of pathology, in the giving of anesthetics and in x-ray work. The hospital was small and there was not a great amount of work in any of these various branches to be done, but when this young woman returned at the end of eighteen months she became practically a "Jack of all trades" and was without question the most valuable asset that hospital had. There was a good consulting pharmacist on the staff; another member of the staff was an excellent radiographer and a good interpreter and his assistance was cheerfully given, and the men who had been trained during their internship in the giving of anesthetics were available to advise and help her in that field. That young woman is now drawing a handsome salary from a hospital whose resources are small, and she is giving a variety of service that would elsewhere and under other circumstances cost the institution very much more; the institution is doing, and doing well, a variety of work that is being neglected or indifferently done in most hospitals of even a considerably larger size. There is no good reason why the same principle should not be applied in any other small hospital; only the material at hand must be developed along lines profitable alike to the individual and to the institution.

There is no hospital so small that its expenditures for food and the service of food to its patients fail to justify the employment of a woman trained in dietetics, and in a small institution the same woman could easily be matron of the institution and look after the housekeeping, the laundry and the general kitchen.

The time has gone by when it is reasonable to expect nurses or interns to act as menials. Aside from fairness and justice to these young people, it is positively wasteful of their efforts and capabilities to put them at minor occupations. In other words, their service is worth more in the field which they are expected to cover than it can possibly be in fields where the lowest type of paid help can efficiently perform the work. Many hospitals that now find themselves unable to attract young women to the training school and young men into internship have only themselves to blame. Also, many hospitals that are having to use high-salaried graduate nurses where they might be using pupils for the performance of the nursing service, and that are having to pay resident physicians where unpaid interns might do the work quite as well, have brought this situa-

tion upon themselves by their short-sighted attempts to use the pupil nurses as maids-of-all-work and their interns as orderlies and scrubmen.

It would be utterly impossible to attempt to lay down any definite rules as to the number of employees compared with the number of patients in a hospital; that relationship will depend so greatly on the conveniences of construction of the building and on the management of the work. It can only be said that it will never do in even the smallest hospital to let the premises go unclean, the linens unlaundered and the patients uncared for. This is merely on the basis of financial returns, to say nothing of the moral issues at stake. A hospital which is unclean and whose service is poor will not attract funds, and the hospital which is clean, whose service to its sick is of a high order, and whose trustees know their business—the business for which they were really elected—need never be without sufficient funds in any community in this country. People who have brains enough to own money and to carry responsibility are learning too much about the value of a community hospital, even for their own purposes and for the purposes of their families and friends, not to be far-sighted enough to be willing to make proper contributions for its support; but they will not give to a hospital that they do not like and that is not rendering good service to the sick.

THE MEDICAL STAFF

In considering the medical staff of a small hospital, we are treading on debatable ground, a ground which is as yet uncharted, and on which the roads are only faintly marked and where are no highways used by all the travelers. Not even the medical profession is agreed on the proposition that every hospital, no matter what its size, should have a definite or closed staff, and in many individual cases there is no doubt that a closed staff, as we know it, would restrict the activities of the institution, interfere with its income and limit its service to the sick.

But as a broad proposition there ought to be a closed staff in every hospital, large or small; by "closed staff" we mean a group of physicians selected by the board of trustees whose aggregate duty it is to see that proper technic in the various medical services is established and that the medical and surgical work is properly done. When it is possible to attain such a group in a hospital, upon it should also devolve the duty of passing upon the qualifications of outside physicians who may be permitted to bring their private patients to the institution. Usually medical men will not be selfish in this regard; they will not wish to keep out qualified medical men, and as a rule, such a staff in the aggregate will be a safe guide to the superintendent as to the elimination of any physician in the community who is not believed to be capable of work standardizable in the community's hospital. It is one of the difficult tasks of the board of trustees to say who may or may not do surgical operations in the hospital; as a rule, trustees are laymen and they do not know surgical technic. Even if they were present in the operating room, they would be incapable of passing on the qualifications of a surgeon or an obstetrician, and they are thrown back of necessity on their own group of medical men for guidance in such a matter.

The superintendent of the hospital, no matter whether he be a layman, a physician, or a trained nurse, will be pretty apt to be closely in touch with the qualifications of the medical men in the community and he or she will be able to obtain intimate appraisal of the qualifications of outside medical men from his or her association with members of the staff. These men will tell the superintendent things in confidence, whereas they would not want to go on record before a board of trustees; and it then becomes the unpleasant duty of the superintendent to bear the brunt of responsibility in withdrawing the facilities of the hospital from physicians who are regarded as likely to do work of a character that the hospital cannot stand for.

OPEN-DOOR HOSPITAL STAFFS

A great many hospitals have had some experiences that make them very loath to attempt the conduct of a hospital under a closed staff. Most of these experiences have to do with baneful influences operating in the staffs of their institutions; and a good many superintendents share this feeling, and for the same reason. But if a hospital undertakes the conduct of its business without a responsible staff upon which to lean, it becomes the imperative duty of somebody connected with the institution to accept responsibility for the character of the medical and surgical work done there. Small hospitals, unfortunately, cannot afford, or at least think they cannot afford, to have superintendents with medical training and no other person is qualified to direct the practice of medicine in any institution; the open-door hospital with an untrained superintendent and with a lay board of trustees must have an intolerable situation and no good work can be expected in such an institution.

The best course for a small hospital whose trustees do not want a closed staff is to have at least an advisory staff, a group of men who can be counted on to see that the medical and surgical work is of a good quality and to see that proper technic is instituted and enforced. Almost every community hospital will have to care for a certain number of free patients. These patients may be paid for by the municipality, by the county, or by some social or benevolent organization, but they will be regarded as what we call "service" patients in the institution and there will be no medical fees connected with their care. As a rule, medical men are not going to take free care of patients in a hospital unless they have a *quid pro quo* in the shape of a staff appointment, or a title, or some influence in the institution that will give them a better standing in the community and that will give them a broader opportunity for experience and practice.

So, taking the whole problem as it must exist in every institution, it is necessary for the administrative forces to rely upon and be guided by one or more medical men concerning the medical and surgical work. They may be called a closed staff or an advisory board of doctors, or it may be the private physician or an influential member of the board of trustees. The result will be the same except that where the connection is not publicly expressed and recognized in an official way the influence is likely to be insidious and harmful rather than beneficial.

THE DIVISION OF SERVICE

No matter how small the hospital or how limited its various services, there ought to be some medical organization or some medical man to supervise and direct the activities of the various services. Call these men chiefs of service, or accept their service without a title; the result must be the same if the conduct of the institution is to be on a high plane. If the institution is large enough to afford work in any service for more than one man a sufficient number of men should be appointed to do that work. For instance, if there is sufficient surgical work to justify more than one man to be associated with it, more than one should be appointed, but one of these should be the chief of the service. He need not be an autocrat, but he should be the member of that service to whom the superintendent and the board may look for confidence and guidance. He should see to it that a proper technic is observed in the operating rooms and in the dressing rooms and in the admission department. He should see that the sterilization is accurate and adequate; he should see that there are rules for the guidance of the nurses and others doing business in the department. The superintendent and the board should rely upon him for advice regarding new instruments and appliances. If it transpired eventually that this chief of service is not attending to his business and is not meeting the responsibility that goes with his office, he should be asked to relinquish it and someone else should be appointed who will attend to it.

It is a difficult thing always to get the members of the medical staff to create rules for the government of their various services. In such a case the superintendent of the hospital should secure rules that prevail in other institutions of like character and offer them as a framework upon which the staff of the hospital may build rules more to its own liking and that will come nearer to meeting its needs. Such rules, when made, should be offered by the service staff, approved by the staff as a whole, and put up to the board of trustees by the superintendent for the board's final approval. When this is done, the superintendent can always fall back on the creation of these rules under the orders of the board of trustees and insist upon their obedience by the service men. Unless the board has approved them, the service men will always feel at liberty to break them when occasion seems to require.

This paper makes no attempt to go into details of organization; it merely suggests some fundamental principles which every board and every medical man in any hospital will be called upon to face and to agree upon. It may be added that probably the most disturbing situation in a hospital, and one calculated to destroy discipline and order and prevent coordination of effort is lack of definite purposes, definite fixing of responsibility. Too often trustees avoid making definite decisions for fear of stepping on someone's toes, or hurting someone's pride. This indecision makes friction, serves to lessen the authority of the superintendent, and invariably makes for poor service.

When you try to preach the doctrine of a sanitary town, you are greeted with objection and a most resentful frown, and if you talk of science you are very apt to strike the very forceful comment, "I never heard the like," for every new improvement is greeted with a roar if it happens to be something that "they never done before."—Illinois Health News.

A $50,000 building for the Aiken Hospital, a new corporation at Aiken, S. C., is nearing completion. Both winter colonists and permanent residents contributed to the building fund, the largest single donor being William K. Vanderbilt.

WHY FUMIGATION IS INEFFECTIVE

Necessary Technic Not Followed and Too Little of Fumigant Used—The Remedy

BY C. E. WARD, M. D.,
Assistant Visiting Surgeon, St. Alexis Hospital, Cleveland, Ohio.

Fumigation as practiced today in many hospitals and institutions is not only ineffective, but also, in reality, a waste of time, irrespective of the enormous amount of money literally thrown away in the use of various materials which are absolutely valueless for fumigation purposes. This waste in itself would be sufficient ground for complaint; in addition, consider the great injustice to our patients and operating surgeons.

The modern hospital of today is properly bending every effort toward the efficient training of the nurse and the proper care of the sick; yet it is the experience of many physicians that the average nurse knows practically nothing as to the importance of fumigation, the proper method to be employed, or the merit of the various fumigating substances in use. It is the duty of every hospital training school superintendent to insist on the thorough instruction of the nurse in the methods of fumigating a room. The inadequate methods now in use in many hospitals, which simply offer a false sense of security, should be abandoned; it would be infinitely better to rely on soap and water and fresh air. If the operating surgeon were informed as to the fumigation of the surgery in some hospitals after a pus case, he would be very reluctant to operate in a clean case in the same institution.

Many articles have been written on the subject of fumigation, and its discontinuance has been advised, washing and fresh air being advocated in its stead. I am in hearty accord with that view if the fumigation of a room is to be done in a haphazard manner. After considerable investigation I find that rooms in many hospitals are fumigated—or said to be fumigated—through the employment of one of several very ineffectual methods:

1. Soaking cloths in formaldehyd solution; letting them dry in the room.
2. Spraying about ¼ ounce formaldehyd solution with an atomizer.
3. Boiling formaldehyd solution over an alcohol flame.
4. The use of sulphur is also employed to some extent.

I find also that many rooms are not fumigated at all after a pus case or one of contagious disease; the bed linen is simply changed, and the room is ready for the next patient. In some institutions various kinds of candles are used, the general impression being that one candle is sufficient; this is a grave mistake, as many candles are required to fumigate 1,000 cubic feet of space. The one agent which has stood the test is formaldehyd, and a sufficient amount of this should be used to secure the sure effect; otherwise it should not be used at all.

Thorough fumigation is costly; if worth doing at all, it should be done properly. To fumigate a room properly, windows, doors, and spaces around radiators, etc., should be sealed with adhesive plaster or gummed paper; blankets, spreads, rugs, etc., should be loosened and laid over chairs. A large pail should then be placed in the center of the room, into which should be poured 1 pint of formaldehyd to each 1,000 cubic feet of space. Should the dimensions of the room be 20 by 20 by 10, 4 pints of formaldehyd are required. To each pint of formaldehyd ½ pound of potassium permanganate should be added. After this is done, the operator should quickly leave and seal the room. It is advisable that the room remain sealed for at least eight hours. Bacteriological tests demonstrate that this method may be depended on—the potassium permanganate as the agent will liberate the formaldehyd gas, thus accomplishing a perfect fumigation.

Formaldehyd solution is in itself valueless; it is the contained gas which, when liberated, kills organisms; by this method fire danger is avoided, which is always present with the use of alcohol lamps or candles.

Potassium permanganate is now very expensive—about $3 per pound—but other chemical agents, superior to permanganate, are in the market at about one-tenth its cost. While these agents can be used successfully in expelling the gas in formaldehyd, they have no other permanganate characteristics and should be used only for fumigation purposes.

Many contagious diseases have been contracted in institutions to the wonderment of those in authority. The answer is imperfect fumigation, or none at all.

In conclusion, if fumigation is an important essential in the hospital—and most of us are in accord as to this—we owe it to our patients and our consciences to employ the method which will really fumigate.

Standards Established by the New York After-Care Committee for Clinics Giving After-Care Treatment to Poliomyelitis Cases

The New York Committee on After-Care of Infantile Paralysis has raised the larger part of a fund of $250,000, to be expended through various cooperating agencies, and has excellent prospects of completing it finally. At the suggestion of the Committee on Public Health of the New York Academy of Medicine, it was decided that aid should be rendered only to those dispensaries which maintain approved standards of after-care. On request of the After-Care Committee, the Associated Out-patient Clinics agreed to certify the existence or nonexistence of such standards in any given dispensary. The Committee on Public Health, consisting of Dr. L. Emmett Holt, Dr. Virgil P. Gibney, and Dr. Charles L. Dana, has defined these standards of equipment and organization as follows:

For a three-hour clinic (assuming that the mothers assist in dressing, rubbing, etc.):

PERSONAL EQUIPMENT

2 orthopedists.
1 neurologist.
1 electrotherapeutist.
1 nurse.
3 masseurs and instructors in muscle-training.
1 record clerk.
2 visiting nurses for treatment and observation.
1 brace-maker (mechanic).

The lay members of this staff (9) may be used in two institutions, giving four hours to each, one having a morning and the other an afternoon session.

MATERIAL EQUIPMENT

Suitable waiting and dressing rooms.

Suitable examining and treatment rooms, containing tables for giving massage, electrotherapy, instructions in muscle reeducation, etc.

Electric apparatus (transmitting faradic, galvanic, and sinusoidal currents).

Testing and measuring apparatus.

Filing cabinets.

Facilities for warm baths, x-ray examinations, use of Zander apparatus, furnishing braces, and consultation with pediatrist and surgeon.

Dr. E. H. Bullock, of Edina, Mo., has succeeded Dr. W. L. Whittington as superintendent of the State Hospital No. 2 at St. Joseph, Mo.

The MODERN HOSPITAL

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Contributors, subscribers, and readers will find important information on advertising page 34.

Land Values and Hospitals

From all over the country come complaints that trustees of new hospitals are finding it increasingly hard to obtain the necessary property consents for the erection of institutions for the care of the sick. "The neighbors do not want a hospital near them," and "Adjoining property owners say a hospital will decrease the value of their land," are the reasons given, and consents are difficult or impossible to obtain.

One of the latest and perhaps the most aggravated case is in the city of Portland, Ore., where the trustees of a tuberculosis hospital found it absolutely impossible to obtain property consents for the construction of a very much needed institution; and when the city council intervened to help the trustees by giving a permit for the building over the heads of adjoining property owners, the matter was taken into court and the fight became so bitter that the trustees finally had to decline the permit granted by the city and the institution is now without a location.

THE MODERN HOSPITAL has been asked frequently whether or not the location of a hospital in a neighborhood really did hurt land values and whether or not the protests of neighbors were justified, on the score of dangers of infection from the hospital to adjacent residents. There are many examples in many parts of the country to show, not only that hospitals do not injure adjoining property, but also that the location of modern hospitals serves in every case to increase the value of nearby property. Examples to this effect could be cited without limit.

And as for the dangers of infection to nearby residents, that is ridiculous. Modern hospitals do not scatter infections all over the neighborhood; indeed, we know now that infections are not airborne, but come from direct contact, and hence it is impossible for a modern hospital to be the source of cross infections to the well people out in the community.

On the contrary, the absence of a hospital in a community and in the neighborhood is a most flagrant cause of infections passing from the sick to the well. If we had plenty of tuberculosis institutions to which those suffering from that disease could go, we would not have active tuberculosis sufferers riding on the street cars beside us and coughing their virulent emanations into our faces. If we had well-ordered institutions for the care of venereal diseases, we would not have open syphilitic sores infecting drinking cups and towels and hand-rails; these patients would go to the institutions and be cured at least of the active process. If we had institutions for the acute communicable diseases, we would not be harboring diphtheria, scarlet fever, and the other infections of childhood in the family homes and the well members of the family, perhaps already exposed and in the incubation stage of the disease, rubbing against well children and other receptive persons on the street cars, in the schools, and wherever people are assembled.

The objection of property owners to the location of a hospital near them is a relic of a period long since gone by—a period when we did not know the cause, the course, and the source of communication of disease; it harks back to a time when the hospital was a place reeking in foul odors, and its disgusting horrors were only emphasized by the use of ill-smelling antiseptics and deodorizers.

The hospital of today is a place to which well people like to go. It is a place that brings business into a neighborhood; it is a place frequented by well-dressed ladies and gentlemen, where flowers and "goodies" of all kinds are constantly being sent in to patients. Urine-stained mattresses are no longer hung out the windows or on balcony rails; cripples on crutches and patients in wheel chairs no longer mar the beauty of the neighborhood. Flowers grow in the hospital yards; there are trees and shrubs and well-kept pavements all about it, and almost uniformly the hospital is the

best-kept and most beautiful place in the neighborhood.

The Superintendent and the Salesman

The underlying reason for the existence of the hospital is the care and cure of the sick and injured. The only product of the hospital is health. The material it works with is human, doctors, nurses, and the necessary people to wait upon these, and to keep the place clean in consonance with the demands of modern medicine. These human elements need to be supplemented by a vast quantity and a great variety of commodities, such as furniture, food, medical and surgical supplies, fuel, light, and so on to infinity.

The superintendent of the institution realizes that his or her duty is to keep in close touch with the agencies that the doctors must employ if the service to them is to be of a high order, because he or she is responsible for the efficiency of that service. We may readily see, therefore, that any call that keeps the superintendent away from the working parts of the institution must be regarded as an interruption, and an interference with his or her duty.

But it is necessary that the hospital have abundant supplies, and these must be bought by someone. The superintendent being charged with the financial management, as well as with the care of patients, must buy what is needed; and in order to buy judiciously, he or she must be informed as to the state of the markets. But buying and selling goods and studying markets is a vast business in itself, and one who is to keep posted must give practically all his time to that business, without other and more imperative cares.

For all these reasons hospital superintendents more than welcome any aid they can get that will lighten the burdens of buying.

Many salesmen claim that they are unable to see the superintendent when they visit the institution, and often they report back to their houses that they have no "stand-in." But there are other salesmen who visit those same institutions and who do have a sufficient "stand-in" to see the superintendent whenever they go there.

But there is no mystery in this state of things. Hospitals do not buy Protestant gauze or Catholic canned fruit. They do not bargain for Jewish furniture or for Gentile soap.

The whole difference in the reception of those two salesmen lies in their own methods. The unwise man, and the shortsighted one, the one without experience in selling to institutions, goes there in the morning, when the superintendent, and, for that matter, every living soul under the roof. is more than busy with the needs of patients and their doctors. If he is so unfortunate as to reach the superintendent at such a time, he offers his wares as the best of their kind and the cheapest without reference to the particular needs of the institution, and wholly without intimate knowledge of hospital conditions and the special problems connected with those conditions.

The other salesman goes there in the afternoon, when things have quieted down and when the superintendent has time to breathe. He talks about his wares, but he does so from the viewpoint of the well informed, both as to his own business and as to that of the hospital. He gives the superintendent many useful hints about the field he is representing, talks about the trade in general, and about probable rises or falls in the market, and the reasons. Often he can tell about what other hospitals are doing in his field, and how and why they bought this or that. In short, his visit has been a pleasure and a profit to the superintendent, who can judge that this salesman, by reason of his intimate knowledge of his own and the institution's business, can relieve the superintendent of a vast amount of "shopping" and thus give him all the more time to attend to things he feels are more important. The superintendent will try out such a salesman, and will "check up" the tips he has given; if the salesman is found to have been honest and fair, he will thenceforth be a welcome visitor and not only will have a "stand-in," but also will sell goods to that hospital, often over the head of a man who has better goods at a lower price, but who has not made himself familiar with hospital methods and who does not know how to "stand in."

This is the whole mystery of selling to hospitals.

Must the Children's Bureau Be Crippled?

Newspaper reports from Washington advise us that Congress threatens to cut down the appropriation for the Children's Bureau in revenge for the activities of Miss Julia Lathrop and her associates in the bureau, in connection with the recent passage of the child labor law. It seems impossible that this report can be true, but many things that politicians do seem impossible to the rest of us, and it could easily happen that the slave-drivers of childhood, most of whom are on the Atlantic seaboard of the south, would attempt to perpetuate a system that now has slight footing in this country.

Not long since the writer of this editorial was in Birmingham, Ala., where the most brazen violations of the sacred rights of childhood are rou-

tine practice in the community. One evening we passed along a street where workers in a large factory came and went; it was bedtime for most people, and yet there were in the tired crowds going to their homes many little children with pinched faces, haggard eyes, and starved bodies, dragging themselves along after a day's work that had begun at eight o'clock in the morning and was now ending long after nine at night. Some of these little people could not have been more than eight or nine years of age and many of them looked under six.

Let it be known to our members of Congress that one of those now demanding revenge on the Children's Bureau by cutting down its appropriation is the master of the factory where these poor, starved little creatures were working; and let it be known to the members of Congress and to the President if need be, that the Children's Bureau is worth more than the "pork barrel" to the people of this country who are becoming educated along the lines of good health, which in a final analysis means child health. And let us have it known to these lawgivers that the country is in no mood to dispense with any of the activities of the Children's Bureau. We know what that bureau has done and is doing; its influence for good is far-reaching; its activities have established a leadership on new paths where formerly we were without a guide. Let it be known that the people of this country do not propose to have the slave-drivers of childhood take revenge on the Children's Bureau. The passage of the child labor law marks only the beginning of the work which the country has for the Children's Bureau to do.

Occupational Diseases and the Physician

An eminent physician who is also a very wise man (the one does not invariably connote the other) has pointed out the shortsightedness of ignoring "foregrounds and backgrounds" in medical work. "Our patients shoot by us like comets," he says, "crossing for a moment our field of vision, then passing out into oblivion. At the end of hundreds of hospital records one can read the words 'Discharged well,' and the eminent surgeon figuring up his 'successes' often counts as such all who have left the hospital well and never been heard from. But peer into the background a little, follow up these cases for a few months or years, and you will often find that 'the last state of that man was worse than the first.'" In other words, too much of our best medical and surgical effort is wasted, because it does not touch the cause—the real, utimate cause—of the patient's condition. The disease in the patient's body is cured for the time, to be sure, but the roots of his disease, which are not in him, but in his social, economic, moral, or spiritual background, remain untouched.

It is therefore most gratifying that we are beginning to pay increased attention in this country to the occupational background of disease. Elsewhere in this issue we note the opening of two important new clinics for occupational diseases, one in connection with Rush Medical College, Chicago, and the other under the auspices of Union Hospital, New York. We also review in this issue an important new book, "Diseases of Occupation and Vocational Hygiene," by Kober and Hanson, which comes in season to fill very much the same place in this country that is occupied in Great Britain by Sir Thomas Oliver's "Dangerous Trades." Such work as this helps to add a much-needed element to our professional consciousness. In the words of the wise physician whom we quoted above:

"A man is not flat like a card. We cannot get the whole of him spread out upon our retina at once. The bit of him which is recorded in the history of his aches, his jumps, and his weaknesses is built into the rest of his life and character like a stone in an arch. To change any part of him appreciably we must change the whole. As well might one try to pick up a man's shadow and carry it away as to treat his physical ills by themselves without knowledge of the habits that so often help to make him sick and the character of which these habits are the fruit."

"The High Cost—"

Nothing so conduces to extravagance as a knowledge that there is plenty of money. This truism holds good in every walk of life—it is merely one of the weaknesses of human nature. In connection with hospital work, one is sometimes tempted to wonder if the purchase of commodities in large quantities for the sake of lower prices is always wise, because, when everyone knows that "there is plenty on hand," waste is almost sure to follow. These thoughts occur on perusal of Dr. Fowler's valuable contribution, published elsewhere in this issue, on economies practiced in the Louisville City Hospital. Dr. Fowler does not claim to have discovered any new methods of economizing, but his paper is more than timely, because every hospital is confronted with "war prices," and Dr. Fowler has pointed out the cure.

THE INSTITUTION ATHLETIC FIELD

Its Uses by Patients, Employees, and Especially by Visiting Teams at the White Plains Convalescent Hospital of the Burke Foundation

BY W. E. WRIGHT,
Assistant Superintendent Burke Foundation for Convalescents, White Plains, N. Y.

The first ground plans of country institutions for convalescents, children, the sanatorium groups, the insane, the indigent, etc., do not usually provide for the athletic field, and most frequently construction goes forward along lines that eliminate the possibility of suitable provision for outdoor recreation. Later the need is appreciated, and may then be gratified only at large expense, and often unsatisfactorily. In visiting two new large country institutions recently I happened to find the superintendents out on the slopes trying to lay out playfields in situations that

Fig. 1. Baseball game—patients vs. employees. Audience but partly shown.

must always lack attractiveness, ready access, efficiency, and easy upkeep. With land area running into acres, there are few ground plan problems which will not admit of a fairly level field, harmonizing with the general scheme. Including it at the outset with the building requirements is the important action.

Upwards of four acres are required for a first-class baseball field, but much less—even under two—may serve well with favoring banks, etc. Given a good infield, the best of teams will accept sloping and restricted outfield

Fig. 2. Patients preparing "outfield" in June (note men and women working together).

conditions. All other feasible exercises and games will fit upon the ball-ground or its borders. Football, tennis, quoits, the Italian ground-bowls, croquet, shot and hammer, medicine ball, gala-day races and contests, military drill, open-air setting-up exercises, band music, parades and fireworks, motion pictures, short-course golf, and the various winter sports, including skating by flooding—this list will partially indicate the various uses of the plot.

But the field affects the institutional life more deeply than these would suggest. Its very presence is a constant suggestion-treatment—an urge to youth-strength memories, to right posture and breathing, hopefulness, teamwork, etc. Employees and inmates here acquire wholesome mutual understandings. Play-therapy in certain classes of patients is of much value—it must often precede the so essential work-therapy—and outdoor play is frequently the entering wedge of uplift, especially in borderline nerve and mental states. Women, too, come into considerable use of the field.

Fig. 3. A golf match "gallery."

There is a constant preachment to *take part* in games, rather than look on. This is well, but is a fractional truth that becomes almost untruth. Ninety percent of well and ill persons will perforce always be onlookers. Watching play is a valuable kind of recreation. If the results could be measured, the onlookers would show larger aggregate gains than the players. This good to the gallery, always so widely distributed, is a much forgotten and underestimated product of the playfield. With us, patients and employees are constantly induced to use our extensive athletic grounds in a variety of ways, through organiza-

Fig. 4. County League football game on Burke Field.

tion and skilled direction, but the "gallery" is our first thought for reasons above indicated.

The prevalent method of making up institution teams for competition out of employees, given more or less sinecures for the purpose, presents obvious disadvantages. A different way here has given high values. We have made our field so good and offered such facilities (as for dressing rooms, transportation, charging admission to outsiders if desired, etc.), that our city and county high schools and leagues and organizations are keen to come to us with their high-class baseball, football, fielddays, etc., throughout the open season. Their frequent practice and coaching proves as entertaining as the final games. The public comes in, and over a thousand persons watch an event.

GETTING NEARER TO COST ACCOUNTING

Cleveland Hospital Council Submits Form of Annual Report by Which Work of Hospitals May Be Compared

The Cleveland Hospital Council has made substantial progress in outlining a form of annual report for its members, the hospitals of Cleveland. Dr. Warner's able paper on "Hospital Accounting and Finances," read before the Philadelphia meeting and published in the December issue of THE MODERN HOSPITAL, was so enthusiastically received that a committee was appointed to continue the work. In the meantime the Cleveland Council, of which Dr. Warner is a member, has been working along the same lines, and Dr. Warner asks that the council's printed report blank be published as supplementary to the paper which he prepared.

CLEVELAND HOSPITAL COUNCIL—ANNUAL REPORT

Report of .....
(Corporate name of institution)

For the fiscal year.....to.....

NOTE CAREFULLY

Please return this report by.....to the Cleveland Hospital Council, 308 Anisfield Building, Cleveland, Ohio.

A HOSPITAL PATIENT is defined as a person receiving continued medical and nursing attention, who occupies a listed hospital bed and remains not less than twenty-four hours. Persons giving regular labor for their board should not be included in hospital figures, except when admitted to the hospital as patients, and the cost of their care should not be included in expenses for hospital patients. WAITING MATERNITY PATIENTS, INFANTS, CHILDREN, occupying hospital beds and receiving continued medical and nursing care, should be included. The DAILY CENSUS REPORT for the previous twenty-four hours should be taken at midnight.

The DAYS OF TREATMENT GIVEN should be obtained as follows: All hospital patients as defined above, treated for any part of the previous twenty-four hours, should be included in this report. The total number of such patients should be figured as the days of treatment given on that day.

OUT-PATIENT WORK OF ALL KINDS, and the total cost and receipts for the same, should be separated from hospital figures and reported under the proper headings. Otherwise the figures for both hospital and out-patient work will be incorrect and misleading.

WORK DONE

Hospital patients (See above notes)	Number of patients	Number of days of treatment	Amount paid to hospital
1. Pay patients (x)			
2. Part-pay patients (y)			
3. Free patients (z)			
4. Public charges (Accepted by county, city, or township)			
5. Totals			

(x) PAY PATIENTS are those for whom at least the cost of their care is paid. (y) PART-PAY PATIENTS are those for whom only part of the cost of their care is paid. (z) FREE PATIENTS are those for whose care nothing is paid. Uncollectible bills for hospital service should not be included here as free patients or free days of treatment, but in line 52.

DISPENSARY PATIENTS AND EMERGENCY OR ACCIDENT PATIENTS remaining in the hospital less than twenty-four hours should be reported separately and not included in the above.

6. DISPENSARY PATIENTS:
   New patients_____; Revisits_____;
   Total visits or treatments.....
   (New patients are those who have not applied before during fiscal year at least. New Patients plus Revisits equal Total Visits or Treatments.)
7. ACCIDENT AND EMERGENCY PATIENTS: Number treated.....
   (Patients remaining in hospital less than twenty-four hours.)
8. HOSPITAL BEDS:
   (a) In private rooms_____; (b) in semi-private rooms or wards_____;
   (c) in general wards_____.....Total_____
9. Beds (d) "admitting"_____or (e) "isolation"_____.....Total_____
   (Not included in line 8.)
10. Average number of days' treatment given each patient.....
    (Divide total days, line 5, by total patients, line 5.)
11. Average number of patients treated per day.....
    (Divide total days, line 5, by 365 or 366 days.)

WORKING FORCE:

12. Number paid resident physicians and surgeons (including pathologist and other special residents)_____
    number of interns_____.....Total resident staff_____
13. Hospital nurses, average on daily duty: (a) graduate_____; (b) special_____;
    (c) pupil_____; (d) probationers_____.....Total nurses_____
14. Number male attendants (orderlies)_____; number female attendants_____...Total attendants_____
15. Social service: Volunteer workers_____; cases_____; visits_____Number paid workers_____
16. General employees (excluding physicians, nurses, attendants, orderlies, and probationers, listed above, but including all others).....Total number_____
17. Total working force.....
18. NUMBER AMBULANCES: For private use of hospital only _____; for emergency service_____;
    for public use (except emergencies)_____.....Total_____

INCOME

EARNINGS OR RECEIPTS FROM OPERATING THE HOSPITAL

FROM PATIENTS:

19. Pay patients (patients for whose care at least cost is paid), including the Rose Fund receipts (amounting to $_____) and including receipts for wages of special nurses if paid to the hospital (amounting to $_____) ..... $_____
20. Part-pay patients (patients for whose care only part of the cost is paid) ..... $_____
21. From county, city, or township patients:
    - Public charges (county) ..... $_____
    - Public charges (city) .....
    - Public charges (township) .....
    - Total public charges ..... $_____
22. Miscellaneous, sales, etc. ..... $_____
23. Emergency and accident room receipts .....
24. Dispensary receipts .....
25. Total earnings from operation of hospital and dispensary ..... $_____

CONTRIBUTIONS FOR CURRENT EXPENSES

26. From Federation for Charity and Philanthropy:
    - (a) Designated gifts ..... $_____
    - (b) Discretionary gifts .....
27. From Calvary Morris estate .....
28. From entertainments, fairs, etc. (net receipts) .....
29. From dues, memberships, etc. .....
30. From individuals not included in (a) or (b) .....
31. From miscellaneous sources .....
32. Total contributions for current expenses ..... $_____

INCOME FROM CAPITAL OR ENDOWMENTS

33. From income of endowment funds (special and general) ..... $_____
34. From rentals, interest on current funds, etc. .....
35. From receipts from sales or other capital funds used for current purposes .....
36. Total capital income from endowment or capital ..... $_____

SUMMARY INCOME

37. Total from operating earnings (line 25) ..... $_____
38. Total from contributions (line 32) .....
39. Total income from capital (line 36) .....
40. Grand total income from all sources ..... $_____

EXPENSES

HOSPITAL OPERATING EXPENSES

41. Administration ..... $_____
    (General officers, clerks, stationery, printing, postage, annual report, telephone, etc.)
42. Professional care of patients .....
    (Including wages of special nurses if paid by the hospital $.....) (salary and wages, nurses, orderlies, attendants, employees, medical and surgical supplies.)
43. General house, department, and property .....
    (Fuel and light, ice, ordinary repairs, rent, insurance, ambulance, laundry, provisions, housekeeping, etc.)
44. Uncollectible pledges, dues, etc., charged off .....
    (If lines 26-32 are on the bills receivable basis and include these sums. If lines 26-32 are on the cash basis, report no figures here.)
45. Social service .....
46. Dispensary .....
    (Include deductions made from hospital figures for proper proportion of common overhead and department expenses. Make this figure, as accurately as possible, the total expense of the dispensary.)
47. Miscellaneous: Travel and transportation, etc. .....
48. Total operating expenses ..... $_____

CORPORATION EXPENSES

49. Salaries (secretary or treasurer and clerks) and incidental operating expenses of the corporation ..... $_____
50. Expenses for raising funds for income, plant, or deficits, for education, advertising and publicity:
    - (a) Commission or salary paid individuals ..... $_____
    - (b) Proportion of Federation's expense for collection of funds, for extension, education, and efficiency .....
    - (This figure (b) should be obtained from the Federation.)
51. Interest on mortgages and loans .....
52. Uncollectible bills for hospital service charged off .....
    (If lines 19-25 are on the bills receivable basis and include these accounts. If lines 19-25 are on the cash basis, report no figures here.)
53. Taxes, legal or other corporation expenses .....
54. Total corporation expenses .....
55. Total operating and corporation expenses .....
56. Average daily per capita cost of patients ..... $_____
    (Divide total cost, line 55, less dispensary cost, line 46, by total number of days of treatment, line 5.)
57. Average cost per dispensary visit .....
    (Divide total dispensary cost, line 46, by total number of visits, line 6.)

ADDITIONS OR EXTENSIONS TO HOSPITAL PROPERTY

(To be added to permanent value of the plant.)

58. New machinery, apparatus, etc. ..... $_____
59. Alterations and extraordinary repairs .....
60. New buildings and land .....
61. Miscellaneous .....
62. Total permanent additions ..... $_____

FINANCIAL SUMMARY

63.	Cash on hand or deficit at beginning of year	$ Deficit	$ Cash on hand
64.	Total income (line 40)		
65.	Total expense (line 55)		
66.	Balance on hand or deficit at end of year	Cash on hand	Deficit
67.	Totals		

ASSETS

68.	Value land, buildings and equipment (Used for hospital purposes.)	$
69.	Other land, buildings, and real property	$
70.	Restricted endowment funds	
71.	Unrestricted endowment funds	
72.	Cash on hand account principal	
73.	Accounts receivable	
74.	Total assets	

LIABILITIES

75.	Loans or mortgages	$
76.	Accounts payable	
77.	Other miscellaneous liabilities	
78.	Total liabilities	$
79.	Excess assets over liabilities	$

OFFICERS OF THE HOSPITAL

President ..... Secretary .....
Address ..... Address .....
Treasurer .....
Address ..... Superintendent .....

IF CITY INSTITUTION

Director public welfare ..... Superintendent of hospital .....
Commissioner of charities and correction ..... Secretary to director .....

The above report is correct and approved by me.
(To be signed by the president or secretary of the hospital or corresponding officers.)

Signature of superintendent making above report .....
.....
(Official title)

What the Chaplain Should Contribute to the Team-Work[1]

BY REV. FRANK W. TRACY, Chaplain St. Mary's Hospital, Rochester, Minn.

At the recent meeting of hospital chaplains in this city the fact was forcibly impressed on me that our hospital is not typical. From almost all of the dangers and difficulties discussed at that meeting happily we are free. We cannot, of course, be immune to the petty annoyances consequent on our humanity; even they, however, rarely invade the chaplain's department. My intimate knowledge of hospital work has been gained at St. Mary's, Rochester; with other Catholic hospitals I have little acquaintance.

As it is understood by me, the object of the Catholic Hospital Association is to elevate the standard of our hospitals, so that when classification of such institutions becomes general—it is bound to come, and soon—we shall be in the forefront. Team-work is considered such a potent factor in its consummation, that this meeting of the association is devoted almost exclusively to the subject, Team-work—its nature and necessity, the ethical basis of team-work, the sister's contribution, the physician's, the intern's, the nurse's, the patient's, and (ingloriously in the rearguard) the chaplain's. Quite appropriately! He is supposedly an abased entity, of whom vulgar rumor saith that, when useless in all other branches of the ministry, he will do as a chaplain. Verily! "Cast into exterior darkness."

What should he contribute to the teamwork of the hospital? Directly to the material prosperity; to the management practically nothing. Boldly I tell it, the chaplain's kingdom is not of the material success nor the perfect system of the institution; he will glory in such achievement by the owners and staff—his domain is spiritual, his chief influence psychic, and consequently his contribution to the team will be in direct ratio to his priestly efficiency and to his personality. Should he possess the temperament of a military governor, of a certainty he will contribute largely to the disorder of the hospital, the discomfort of those who are (unfortunately for them) confided to his keeping, and no small amount to the disturbance of his own soul. On the contrary, if he be a man of deep religious conviction, gentlemanly behavior, high ideals, comprehensive charity, and attend strictly to the duties of his office, unquestionably he will be an acquisition to the team, be at peace with his neighbor, and the current of his existence will run smoothly. He will also be guided by the terms of his appointment. My instructions from his lordship, Bishop Heffron, when he sent me to Rochester, were exceeding brief; they can be summed up in the terse sentence, "Don't interfere."

The Catholic chaplain is the direct representative of the Catholic church in his institution—he is there by right of episcopal authority—and therefore his attitude should not be apologetic. He stands for the Catholic church and its clergy to many of the patients who have never before met a Catholic priest, and who in all likelihood will judge the Church and its ministry by their impressions of the chaplain. He should on that account be ever on the qui vive, and his conduct must be above reproach. "See that you walk circumspectly" has for him a signal significance, as in hospitals of prominence or large capacity

[1]Read at the meeting of the Catholic Hospital Association, Milwaukee, June 7-9, 1916.

he will necessarily be much in evidence. His horizon is indeed a wide one. The people with whom he comes in contact are of varied types socially, religiously, and intellectually. He meets the man of millions and all the intervening grades to the poor man in the ward whose sympathetic townsfolk paid his transportation to the clinic. He meets people of intense religious feeling, the indifferent—who consider one religion as good or as bad as another—those who affiliate with a church to satisfy the conventions, and the purely worldly, who never give religion a thought. He has to deal with good, lax, and derelict Catholics, fairminded non-Catholics, the blindly prejudiced, who can assign no sane grounds for their opposition to us, and betimes the lady of Gothic architecture, to whom his Roman collar is the hall-mark of iniquity.

The chaplain comes to know men of undoubted genius —authors, men who have gained unwonted distinction in the business world, and eminent professional men; the female of the species who affects poetic inspiration, the ordinarily well-educated business man as well as he of common school knowledge, and the really illiterate, and to this widely divergent aggregation the chaplain must be "all things." An impossible feat, you think! Positively no. With unfailing good humor and a heart full of Christly charity, he can work wonders and accommodate himself to them all. "Charity is patient, is kind, dealeth not perversely, is not provoked to anger, beareth all things, endureth all things."

The chaplain is simply a pastor of souls. His bishop commissioned him to minister to the spiritual wants of the sisters and of all the Catholic inmates of the hospital. Undoubtedly he will have no difficulty in leading the sisters to deeds of sanctity; in isolated instances he will have a restraining influence on mistaken zeal. He should conduct the prescribed religious exercises of the house with decorum, cheerfully and punctually—the last so much contributes to the good order of the establishment. As a good shepherd, he maintains a vigilant guardianship over the Catholic nurses, helping them to lives of virtue, and continually holding before their mental vision the necessity of conscientious service; taking care not to interfere with their other activities unless they offend against Christian ethics. To the Catholic patients he must give of his best, the special objects of his solicitude being the poor, the lax, and the derelict. The poor he must always cherish, the lax he must energize and invigorate, and the derelict he must rescue and bring into the safe haven of the Almighty Father's friendship. In every instance he should adopt all legitimate means that "nothing be lost." Sometimes this will entail minor surgery. By the judicious use of his probe he can drain many of the long-standing abscesses of the soul, and, by injections of a well-regulated solution of brotherly and God's love, keep the spiritual pulse strong and regular. How very frequently does the chaplain contend with persons on the verge of despair! Their physical condition demands immediate surgical action; their souls, on account of their erring lives, are even in a worst state; they realize their sad plight and shrink from the possible consequences of an operation, fearing God's just wrath much more than the scalpel of the surgeon. Then it is that the chaplain can accomplish his best work. He must treat such cases with the greatest tenderness, allay their fears, and drive home the truth that God is a loving father even when offended, that He is always willing to grant pardon to the truly repentant who return, prodigal-like, to crave forgiveness, confess their transgressions in His sight, and determine to repair the falls of the past by the uprightness of the future. Generally they hearken to his pleading, and behold the instant change! A craven coward, hesitant and despairing, transformed into a being calm of soul, confident of God's mercy, reliant on God's will, and now ready to face his ordeal with true Christian fortitude.

To the patients who are not Catholics the chaplain must show continued kindness and courtesy. He should not, of course, obtrude on them, but he ought to call on them in a friendly way if he has reason to believe that his visit will be agreeable. From four years' experience it seems to me that in the great majority of instances his visit will be very desirable, provided it be timely and not unduly protracted. They will easily recognize the sincerity of his concern, and his disinterestedness can be proved by absolute refusal of anything that savors of a gratuity. Those patients leave the hospital with a better feeling for the chaplain's religion and with a regard—oft-times an enduring friendship—for the chaplain whose kindly, sincere interest must have assured them that his alleged satanic appendages of hoofs and horns are as mythical as his worship of graven images or his fee for absolution.

Visitation of the sick plays no unimportant part in the chaplain's contribution to the teamwork. Sick people demand a great deal of sympathy; as a rule, they are lonely, and those who are seriously ill for the first time are very liable to become despondent and pessimistic during the early stage of their sickness. They should be visited opportunely and cheered up. Cheerful and hopeful talks to the sick are a splendid tonic and conduce to their speedy recovery. One must not descend to levity —it is unseemly; anything, however, is better than gloom. With all due respect to ecclesiastical authority, I assert that no man of tragic mien or sullen disposition should be appointed a hospital chaplain; his visit to the patient will usually be as beneficial as a streptococcus infection.

The chaplain should be a pronounced pacifist—Bryanesque, in fact. He must be on good terms with everybody in the hospital—whenever possible. His relations with the interns ought to be of the most cordial character; they are ordinarily big, broad-minded, well-informed, companionable fellows and always anxious to help. If given opportunity, they will be the chaplain's best friends. At St. Mary's, Rochester, we get along exceptionally well. The chaplain never yet essayed to instruct the interns as to how they should care for their patients, and up to the present no intern has manifested the slightest inclination to conduct the Sunday evening devotions.

In conclusion, let me state that, should the chaplain not have the gift of knowledge, he must pray unceasingly for the gift of silence; could he but similarly convince many of his visitors, most assuredly would he contribute to the joy of the angels in heaven.

There was a suggestion made this morning that the chaplain be guardian angel to the sisters. I would say from the bottom of my heart, do not change the old order; leave their tutelage to the invisible spirit—the relation is much less liable to misinterpretation.

Dr. Karl H. Van Norman, formerly first assistant superintendent at the Johns Hopkins Hospital, who enlisted in the British hospital service about a year and a half ago, has been promoted to the position of assistant to the chief of the Canadian hospitals in England. The unit embraces nearly a score of hospitals caring for wounded Canadians, the headquarters being in London.

HEALTH AND HAPPINESS WEEK

Minneapolis Celebrates Enthusiastically With Monster Parade, Exhibits, and Public Meetings

The fact that the general public is becoming more interested in matters pertaining to health has had no better demonstration recently than the celebration of "Health and Happiness Week" in Minneapolis during the first week in December, which at the time attracted wide attention.

Like other cities, Minneapolis has had frequent exhibits and celebrations by various organizations, such as antituberculosis societies, infant welfare organizations, cancer associations, etc., besides the usual "Health Sunday" in the churches once a year. But this year all such demonstrations were united into one, the celebration extending over a period of eight days, and a degree of enthusiasm aroused that was a surprise to even those who were responsible for the plans. A large number of organizations were interested in the celebration, among them being the Civic and Commerce Association, the women's clubs, the Antituberculosis Society, the Associated Charities, Infant Welfare Society, the City Hospitals, the Dental Society, the Health Department, various departments of the University of Minnesota, the Boy Scouts, the public schools, Campfire Girls, and others.

Fig. 1. Float of the Infant Welfare Society in the parade which inaugurated Health and Happiness Week in Minneapolis. Photographed by C. J. Gibson, Minneapolis, specially for THE MODERN HOSPITAL.

The celebration was opened officially on December 2 by a monster parade, surprising in its size and unique in its conception. For several hours before it started, the sidewalks along the line of march were crowded by thousands of people, whose interest, once aroused, remained unimpaired during the entire week. The parade was headed by a group of fifty young women on horseback, clad in the white uniform of the historic Ku Klux Klan of Civil War days. These were followed by thirty-eight other divisions, including "good housing" floats, Boy Scouts, a number of children from the various settlement houses dressed to impersonate various infectious diseases, and a large number of automobiles bearing representatives from the various women's clubs, and floats illustrating the work of the Dental Society and some of the branches of the City Hospitals, and of the Glen Lake Sanatorium. The parade required more than an hour to pass, and was made up mostly of organizations directly connected with some form of health work, or floats intended to drive home some important lessons.

Following the parade, the real celebration was begun on Sunday by the observance of Health Sunday in most of the churches of the city. On Monday morning an exhibit was opened to the public in a large store room, usually used as a show room for automobiles, on one of the principal business streets, with an overflow exhibit across the street. Booths in the exhibit were occupied by such organizations as the Civic and Commerce Association, the Department of Household Economics of the University, the Department of Dietetics of the public schools, the Antituberculosis Society, the Dental Society, the city hospitals, the Health Department, and the Visiting Nurses and others. The rooms were crowded by the general public every day for the entire week from 10 a. m. to 9 p. m.

The largest exhibit, and the one which seemed to attract the most attention, was that from the city hospitals. This was especially and carefully planned to show to the public the work of a large general hospital, rather than simply the buildings and equipment. A number of artistically designed posters conveyed to the public information in which they should be interested, such as the number of patients admitted during a year, the capacity of the various departments, method of obtaining a patient's admission, and charts showing the route taken by an ordinary patient, from the receiving wards to his discharge through the Social Service Department, and indicating what is done for him at each stage. A series of about fifty large photographs, showing scenes in the hospital, attracted attention and added an artistic element to the exhibit.

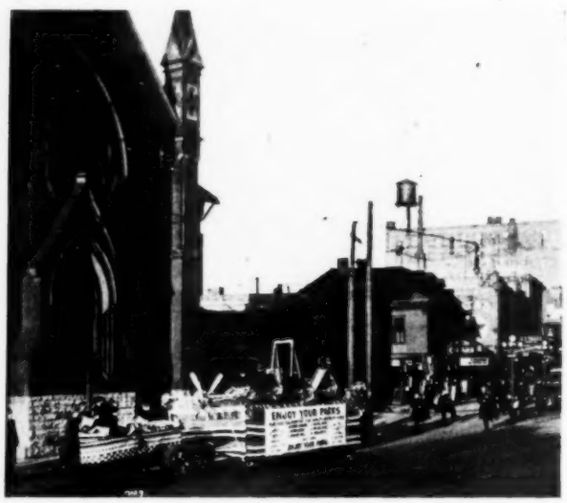

Fig. 2. Float calling attention to the advantages of the Minneapolis parks for recreation. Photographed by C. J. Gibson, Minneapolis, specially for THE MODERN HOSPITAL.

The public showed a very keen interest in the demonstration of the nursing of contagious diseases. This was shown by a series of photographs, large enough to be easily seen, and taken for the purpose in the Contagious Disease Hospital. A nurse, especially trained in the Pasteur technic, demonstrated these pictures, describing each step in the care of a case of contagious disease from the removal of the patient from the ambulance until his final discharge. The nurse wearing her gown at the bedside of a patient, the same nurse changing her gown and scrubbing her hands before going to another patient, the sterilizing of the dishes, disposal of the garbage from the pa-

tient's tray in the incinerator, the taking of a throat culture, an intubation, and many other operations of a like nature, familiar to those engaged in the nursing of contagious diseases, were shown in the photographs and demonstrated to the public. Other nurses illustrated, by means of a hospital bed and a life-size doll, such familiar and useful things as the bathing of a patient in bed, the making of a bed, the making of a croup tent, and the Klondike bed. Hopewell, the tuberculosis branch of the city hospitals, had an interesting corner, in which was the Klondike bed above alluded to, and two show-cases filled with fancy work made by the patients, much of which was sold for the benefit of the patients who had made it.

The laboratory of the hospital showed many things illustrating the work of a modern clinical laboratory, and the pathologists were kept busy during the entire week by a crowd deeply interested in actually seeing the germs they had heard so much about, or listening to explanations of different laboratory operations.

A somewhat unusual part of the hospital exhibit consisted of a moving picture reel, taken in the hospital for the special purpose of illustrating the emergency service. It began by showing the emergency ambulance with an accident case, backing up to the door of the receiving ward.

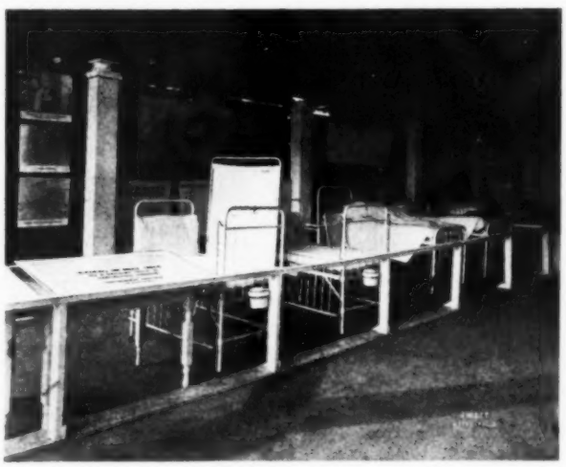

Fig. 3. Exhibit of Minneapolis city hospitals, Health and Happiness Week. Photographed by Sweet, Minneapolis, specially for THE MODERN HOSPITAL.

The patient was then shown receiving the first examination and first dressing in the receiving room, and was followed through the surgical ward to the operating room and placed upon the operating table. The actual operation was not shown, but the film showed the preparation of an operating room for an operation, including the sterilizing of the dressings and instruments, the "scrubbing up" of nurses and interns, and the placing of the patient upon the table. Such a film has a real educational value, as it shows a phase of hospital work not usually seen by the public. Folders bearing a picture of the hospital and giving much condensed information were distributed during the exhibit.

The activities of Health and Happiness Week were not confined to the parade and the exhibit; these were accompanied by talks on health subjects in various parts of the city during the entire week. A lecture hall within a few blocks of the exhibit was comfortably filled every afternoon and evening, and talks were given there, and at various shops, school houses and churches, throughout the week. Some of these health talks were given by local physicians, while others were delivered by special speakers brought from various other cities for the purpose.

On Tuesday night the great "rally" of the week occurred. This was a monster meeting held in the Auditorium, and addressed by Dr. W. A. Evans, of Chicago; President George E. Vincent, of the University of Minnesota; Dr. C. J. Oakman, of Detroit; and Dr. H. R. Gaylord, of New York. The Auditorium, with a seating capacity of nearly three thousand, was filled to the limit, and some of the speakers were sent to the street, where they addressed an overflow meeting of another thousand.

The week's celebration was generally conceded to have been a complete success. It has stimulated an interest in health matters to a surprising degree, and its good influence will probably be far-reaching. One important result which is hoped for at present is the arousing of public sentiment in favor of taking the health department out of politics and uniting it and the hospitals and the department of hygiene of the schools under one board, which would then have charge of all health activities of the city. A bill to provide for such an organization is now being prepared, and will be presented to the Legislature in a few weeks. In the meantime arrangements have already been begun to repeat "Health and Happiness Week," probably on a larger scale, next year.

STATE AID WITHDRAWN FROM CERTAIN PENNSYLVANIA HOSPITALS

Auditor-General of Pennsylvania Acts on Recommendations of Baldy Report—Must Better Conditions or Get No Money

Auditor-General Powell, of Pennsylvania, has recently refused to approve payments of state appropriations to certain hospitals hitherto in receipt of such aid. This action is based on the report (characterized by the newspapers as "blistering") of the Bureau of Medical Education and Licensure, which declares that a number of state-aided hospitals are inefficient and unworthy of encouragement. Hospitals at Braddock, Chester, Corry, Indiana, McKees Rocks, Meadville, Mount Pleasant, New Castle, Pittsburgh, Sharon, Uniontown, and Waynesburgh are said to be affected. The board of directors of one of these hospitals is said to have taken the superintendent of the institution so severely to task for pointing out deficiencies to Dr. Baldy of the Bureau of Medical Education and Licensure that the superintendent's resignation followed. On the other hand, it is pleasant to note that at least one hospital has decided to make the improvements necessary to retain a claim on state aid; presumably others have followed this sensible course.

The report of the Bureau of Medical Education and Licensure contains nothing that is new to those familiar with the hospital situation in Pennsylvania; yet it seems to have created a sensation among the lay public. Columns of astonished comment have been devoted by the lay press to the deficiencies pointed out by the report. That some of the 166 hospitals receiving state aid allow patients to undergo the dangers of anesthesia at the hands of inexperienced interns or inexpert practitioners—that some are disgracefully lacking in laboratory equipment—that some do not discriminate against incompetent physicians and surgeons—that in many hospitals patients are admitted and sent to the operating room without any preliminary scientific examination or any preparation for operation whatever—that in some cases the interests of a hospital and its patients have been subordinated to the interests or ambitions of some one influential physician—all this is apparently news to the good people of Pennsyl-

vania whose money has been lavished, not, as they supposed, to benefit the sick and suffering, but primarily to feather snug nests for professional incompetents.

Unwelcome as these facts must be, Pennsylvanians have good reason to feel encouraged; in the first place, because the best remedy—publicity—has been unsparingly applied to the ills from which the institutions of the state are suffering; in the second place, because, in general, hospital managers are reported as eager to remedy defects when these are pointed out; in the third place, because the auditor-general of the state has followed up the Baldy report by stringent action against the "self-satisfied and helpless hospitals, more or less dominated by private influences."

NURSE MAY GIVE ANESTHETIC

Attorney-General of Pennsylvania Decides that an Anesthetic Is a Drug, and May Be Given by a Nurse Under Direction of a Physician

"A physician sees a patient, examines her and determines that it is necessary that an anesthetic be administered for the purpose of the performance of an operation or for other reasons. He instructs the nurse to administer the anesthetic. Is this action on the part of the nurse illegal in the state of Pennsylvania?"

The preceding question was submitted to the attorney-general of Pennsylvania, who answered as follows:

"The question arises in connection with the practice of medicine and surgery.

"By the act of June 3, 1911, P. L. 639, Section 1, it is provided:

"That on and after January first, nineteen hundred and twelve, it shall not be lawful for any person in the state of Pennsylvania to engage in the practice of medicine and surgery, or to hold himself or herself forth as a practitioner in medicine or surgery, or to assume the title of doctor of medicine and surgery, or doctor of any specific disease, or to diagnose diseases, or to treat diseases by the use of medicines and surgery, or to sign any death certificate, or to hold himself or herself forth as able to do so, excepting those hereinafter exempted, unless he or she has first fulfilled the requirements of this act and has received a certificate of licensure from the Bureau of Medical Education and Licensure created by this act, which license shall be properly recorded in the office of the Superintendent of Public Instruction at Harrisburg."

"This section of the law contains within it practically everything that is included in the practice of medicine and surgery—which has been defined to consist in three things:

"First, in judging the nature, character, and symptoms of the disease; second, in determining the proper remedy for the disease; and third, in giving or prescribing the application of the remedy to the disease."—*Underwood v. Scott*, 23 Pac. 942 (Kansas).

"These are not the functions of a nurse. The act of May 1, 1909, P. L. 321, which provides for the examination and registration of nurses, with the purpose in view of safeguarding the public from insufficiently trained and incompetent nurses expressly provides (Section 9):

"Nor shall anything herein contained be considered as conferring any authority to practice medicine, or to undertake the treatment and cure of disease."

"The question submitted to this department, therefore, is, in effect, whether the administration of an anesthetic by a nurse, acting under the orders and direction of a physician or surgeon, amounts to the practice of medicine by such nurse.

"There are many things that a nurse may lawfully do in the field of medicine and surgery, when acting under the direction and supervision of a physician or surgeon, which she could not do of her own initiative or independent of a physician's orders or instruction.

"For example, she may administer drugs of all types, narcotics and stimulants; give hypodermic injections of morphia, hypodermoclysis and enemas; take the temperature and pulse of the patient and give prescribed remedies in case of collapse or undue excitement; give baths and massage; place dressings and bandages, and apply salves, prepare saline solutions to be injected into the blood vessels under certain conditions, and many other duties peculiarly within the ministrations of the nurse in the sick room.

"The prescribing of these various things is the duty of the physician; but under his orders and direction, the nurse may lawfully administer them—otherwise her usefulness would be very largely curtailed, if not wholly destroyed. The nurse may not assume the place of the physician and practice medicine and surgery, but she assists him in his practice, and in some respects serves as eyes, hands, and feet for the physician—she is a human instrument, used and employed by the physician in the treatment and cure of disease.

"An anesthetic is a substance capable of producing temporary loss or impairment of feeling or sensation.

"'Anesthetize, is defined in the Century Dictionary: 'To bring under the influence of an anesthetic agent, as chloroform—render insensible, especially to pain.'

"Anesthetics are used in the practice of medicine and surgery largely in connection with surgical operations for the purpose of rendering the patient insensible to pain.

"Whether an anesthetic shall be used in a given case, and what particular anesthetic shall be employed, is a question for the physician and surgeon alone. To determine these questions comes within the practice of medicine.

"But there is nothing in the law which places the administration of anesthetics on a different or higher plane than any other drug. The physician must prescribe it, and directs its administration, but the trained nurse, acting under his orders and directions, may administer it without assuming any of the functions of the physician. From the very nature of the case, the nurse generally acts more directly under the supervision of the physician in the administration of anesthetics than she does with respect to most drugs, which are frequently, if not usually, administered during the absence of the physician, but in accordance with his directions.

"I take it that your inquiry presupposes that the nurse has had training in administering anesthetics and is competent to do so.

"It must be remembered that all these acts for the examination and licensing or registration of physicians, nurses, etc., are not intended to protect these several professions against competition, but are an exercise of the police power of the state to protect the public against incompetent and unskilled practitioners, and should be construed solely with that end in view.

"You are accordingly advised that it is not illegal for a nurse who has been trained in the administration of anesthetics to administer such anesthetic as may be prescribed by a physician, under and in accordance with his orders and directions. Very truly yours,

"WILLIAM H. KELLER,
"First Deputy Attorney-General."

An appropriation of $75,000 is available for the erection of new quarters for the medical school of the University of Oregon, at Portland, and the university authorities are seeking additional funds which will enable them to build a general hospital, a hospital for crippled children, and a hospital to be devoted exclusively to surgical cases. Construction work on the new home for the medical school will probably be started within the next few months, it is said.

CURRENT HOSPITAL LITERATURE

ALBERT ALLEMANN, M. D., Foreign Literature.
Army Medical Museum and Library, Office of the Surgeon-General, United States Army.

The History of the Growth of the Anti-Tuberculosis Movement in Massachusetts and the Lessons to be Learned Therefrom. Vincent Y. Bowditch, M. D. Boston Med. and Surg. Jour., 1916, CLXXV, No. 24.

Bowditch sketches the history of sanatorium treatment of tuberculosis, particularly in Massachusetts. At present, he says, ten or twelve cities in Massachusetts of 50,000 inhabitants or over have hospitals (some under private management) for advanced cases; four cities under 50,000 have hospitals. There is also one county hospital in Hampshire and another authorized for Barnstable county. In addition, fifty-four of the cities and towns of 10,000 inhabitants or over have dispensaries.

A New Development in Sanatorium Treatment. Daniel E. Drake, M. D. Jour. Am. Med. Assn., 1916, LXVII, No. 24.

Drake emphasizes better diagnosis, secured by the cooperation of trained specialists, as the all-important factor in sanatorium administration. "It is therefore more necessary than ever that modern sanatoriums have a competent body of visiting consultants in addition to their own staff." Illustrating this point, he analyzes seventy-five cases of chronic constipation, and concludes that the group requiring surgical therapeusis, in addition to the usual sanatorium care, is rapidly growing in size and importance.

The Intensive Group of Social Service Cases. Mary C. Jarrett. Boston Med. and Surg. Jour., 1916, CLXXV, No. 23.

Social service in this hospital, as in most others in which it is rendered, falls into two classes of cases. In one only slight service is undertaken; in the other the social service department endeavors, by advice, by study of the history as an aid in diagnosis and by continual supervision, to benefit not only the patient, but also his family. Jarrett believes that more attention should be paid to out-patients in the earlier stages of mental difficulties with a view to prevention, and that, when funds permit, a routine examination should be made of every patient to determine his need of social care.

The Tuberculin Dispensary. Richard Cole Newton, M. D. Med. Rec., New York, 1916, XC, No. 26.

Newton believes that the chief reason for the unsatisfactory rate of progress toward the eradication of human tuberculosis is the large number of unrecognized incipient cases. To stamp out tuberculosis it will first be necessary to make routine tests of the population for the disease; and the first practical step toward this end, in Newton's opinion, is the establishment of properly equipped tuberculin dispensaries in which cultures can be made, x-ray pictures taken, and every appliance for the diagnosis and cure of tuberculosis employed by experts. He suggests that it would be well worth while for some philanthropist to institute in the United States a string of tuberculin dispensaries like the Rockefeller Foundation hookworm dispensaries, "only somewhat more elaborate (since they must be more permanent, and fitted to handle a more complicated disease)."

State Care of the Indigent Insane. Charles W. Burr, M. D. Pennsylvania Med. Jour., 1916, XX, No. 2.

Burr is convinced that state care is the only satisfactory solution to the problem of the indigent insane, and that a fixed proportion of the state's income should be devoted to this purpose. The board controlling the insane, the feeble-minded, and the epileptic should be entirely separate from the board of charities and should control disbursements for these classes. The criminal insane, the acutely insane, and the chronic insane should each be segregated. The institutions should be small. Hospitals for the acutely insane should, when possible, be in large cities; hospitals for the chronic insane, in the country. It is better, Burr believes, to spend money on farms for the chronic insane than on elaborate buildings. The local hospitals, in his opinion, should control their own internal affairs, but should be dependent on the central (state) board for money.

Hospital Experience with an Open-air Hall (Ziekenhuiservaring met een openluchtzaal). Dr. J. L. LeRutte. Ziekenhuis, Amsterdam, 1916, VII, No. 10.

The author has used the open-air treatment with success for the last twelve years. He used stretchers, covered with oilcloth, for the treatment of tuberculous mental patients. These stretchers look like small portable tents and have the advantage that they can be carried anywhere in the hospital park, in the shade or sunlight, just as the patient prefers. These stretchers are also used in cases of chlorosis with heart and other complications and for rest cures.

The author then relates how Dr. Pol, in Lawang, Java, has used the open-air treatment for many years, not only in tuberculous cases, but also in many cases of psychoses, in dementia precox, and depressive and inanition psychoses. He applied the sun treatment in cases of rheumatism, anemia, in diseases of the heart and blood vessels. Very quieting was the effect of hydrotherapy combined with the open-air treatment on restless patients with hallucinations, especially on those with alcoholic psychoses. Most of them fell asleep. Sufferers from persistent sleeplessness passed the whole day in the open air in deep sleep. In some cases of insomnia and absolute loss of appetite it was found that the patients were greatly benefited by a small amount of work in the field or in the kitchen garden. When the patients had to stay inside for some reasons, all the former symptoms returned, which proves that the favorable effect must be ascribed chiefly to fresh air and light. The author thinks that in general the hospitals in Holland do not give enough access to light and fresh air, and the temperature is usually too high and the moisture of the air varies too much. The question of ventilation is of great importance. Here many wrong notions are still in vogue, and yet the experiences in the open-air treatment should point out the right way. A healthy person sleeps much better in a cold room with an open window than in a closed, warm room. Why should this truth be disregarded in a hospital?

Dispensaries of Social Hygiene and for the Prevention of Tuberculosis (Dispensaires d'hygiène sociale et de préservation antituberculeuse). Ann. d'hyg. pub., Paris, 1916, XXV, April.

Among the preventive measures against tuberculosis public dispensaries take the first place. Experience proves that a dispensary renders the greatest service and at a very low expense. In the course of a discussion of this question in the French Senate it was proposed to establish such dispensaries in all the larger communities of France, except in places where antitubercular dispensaries have been established by local initiative. But if in a community, during five consecutive years, the number of deaths exceeds the general average mortality in France, a public antituberculosis dispensary shall be established if the board of public hygiene so decides. The expenses of these dispensaries are to be borne, if no local provisions have been made, by the community, by the department, and by the state. It is estimated that such a dispensary with all its accessories will not exceed 25,000 francs ($5,000). The physician appointed for this service visits the dispensary at fixed times. A nurse is to have full charge of the establishment. In the larger communities a small service of hydrotherapy may be combined with the dispensary. By establishing a great number of these dispensaries it is expected that the number of hospital patients will be greatly reduced.

After-Care of Infantile Paralysis Cases. Oliver H. Bartine. Med. Rec., New York, 1916, XC, No. 25.

Bartine, who until recently was superintendent of the Hospital of the New York Society for the Relief of Ruptured and Crippled, cautions "the many enthusiasts who are desirous of opening orthopedic clinics and brace-shops" to give the matter careful consideration and to consult with those best informed on the subject, lest they find themselves carrying an unnecessarily expensive burden and furnishing inadequate relief. He emphasizes the value of better clinical and social histories of cases of poliomyelitis. The policy of obtaining such histories, not only in indoor, but also in outdoor departments, has been generally adopted during the recent epidemic, and the resulting data promise to be of great value. Bartine finds it essential that hospitals caring for such cases have an adequate social service department. It is necessary, particularly when parents understand little English, to drill them on the doctor's instructions, to impress them with the importance of returning on the dates specified, and to ascertain, if the homes are far distant, whether or not the parents can afford the carfare. The social worker also sees that treatments prescribed by the doctors are carried out, and that the needs of the little patients are supplied with respect, for instance, to nourishing food, warm clothing or orthopedic shoes. At the Hospital for Ruptured and Crippled a fund is provided to meet such needs.

The Institution of Maternal Assistance in Bologna. Dr. G. Finizio. Nipiologia, Napoli, 1916, II, No. 3.

This institution was established by a society of charitable people for the purpose of assisting poor married mothers and their babies, as the public institutions of this kind are only permitted to receive illegitimate infants and foundlings. The establishment exists since 1907 and has done a great work since. In 1915 not less than 310 mothers with their babies have been cared for. In very many cases the mothers are too poorly nourished to feed their babies, and it is especially these mothers that are assisted. The institution serves on an average of sixty meals each day. Mothers who are sick or not in a condition to care for their babies, receive medical attention and the infants are fed partly by wet-nurses, partly on artificial food.

With regard to tuberculous mothers the author thinks that, considering the marked predisposition of the newborn to take tuberculosis, the child should at once be separated from its mother and cared for in special institutions similar to those established in Switzerland and other countries.

The Treatment of Injured Workmen in Large Hospitals (De behandeling van door bedrijfsongevallen getroffenen in de groote ziekenhuizen). Dr. J. A. Korteweg. Ziekenhuis, Amsterdam, 1916, VII, No. 10.

Workmen's insurance against accidents is a reasonable demand of our time, but the law as it now exists in Holland is far from being perfect. In former times necessity frequently compelled an injured workman to go to work before he was completely cured. The insurance law has done away with these deplorable conditions. But in spite of the greater means and more perfect methods the results of the treatment of fractures are poorer than in former times. The cause of these shortcomings must be sought in the great difference between the small amount of scientific knowledge which the treatment of mechanical injuries requires, and the great amount of time and the high degree of care which are necessary in the application of this knowledge. For these reasons the treatment of such cases is to a great extent left to assistants. But, lacking the knowledge of practical life, these assistants cannot see what great social interests depend on a complete and perfect cure. From want of the necessary medical experience and a certain light-mindedness they lack the power of conviction, which, next to experience and unselfish devotion, is necessary to gain the respect and confidence of the patient in such a degree that the latter will follow carefully the advice and instructions given him. For these reasons the treatment of injured workmen demands a man of ripe experience, not only in the field of mechanical injuries, but also in the field of knowledge of human character; a man of ripe years, who has seen more of the world than an inexperienced young student.

Institutional Typhoid Epidemic Combated by Vaccination. Philip B. Newcomb. Jour. Am. Med. Assn., 1916, LXVII, No. 24.

Complete and compulsory immunization was practiced on 1,498 persons, comprising officers, employees and their families, and patients of the Osawatomie State Hospital for the Insane, Osawatomie, Kan., in the spring of 1916. During the previous summer twenty-five cases of typhoid had appeared in the town of Osawatomie, situated a mile from the hospital, and a few typical and atypical cases occurred in the hospital during the winter of 1915-16. Immunization of patients and attendants was urged, but was not carried out until after the occurrence of an epidemic of forty-one well-defined cases in the hospital in March. In April authority was obtained to enforce vaccination on all officers and residents on the hospital grounds. Since it was found that the cost of the ordinary serial package of bacterin, supplied by a pharmaceutical house, would be prohibitive, bulk bacterin was prepared from the same strain of bacillus as that used by the army, and over 4,000 doses were administered. Weston's technic was followed in the main. No abscesses followed the injection and no severe reactions were noted, though a few patients had mild chills. Efforts to locate the source

of infection in food, water, or carriers were unavailing, but the colon bacillus was found in the well water used in the institution. The well was closed and boiled river water used thereafter.

Newcomb believes that general immunization should be practiced in institutions on the appearance of typhoid in the vicinity or on the appearance of the first suspicious resident case, and that routine inoculation of new patients and recently installed employees should be made the rule in any institution with a large resident population. In any epidemic, also, all sources of food and all water supplies should be under suspicion and examined most carefully, no matter what their previous reputation may have been.

Diversional Therapy in Mental Diseases. A Plan for Its Employment, with Special Reference to Social Clubs. Leigh F. Robinson, M. D. Med. Rec., 1916, XC, No. 24.

Robinson believes that diversional therapy is capable of very useful results in various classes of mental cases, helping to dispel illusions and to reeducate the attention in manic-depressive insanity, retarding deterioration in the precox group, directing the stream of thought into healthier channels in the functional group of psychoses, and arousing from their lethargy the dements and aments who show slow reaction to external stimuli. Care should be taken not to overtax the patient's strength. At the Taunton State Hospital, Mass., this work is under the direction of the superintendent of nurses. Robinson believes this to be the best arrangement. He is very enthusiastic about results attained with social clubs for specified diversional purposes among patients. He lays down the following principles for their conduct:

"First, give patients, as far as possible, full charge of the clubs which they compose; second, keep up an interest by not allowing the object of the club to diminish in its importance; third, serve refreshments at the meetings, and, if at all possible, grant picnics and special privileges whenever such are requested; fourth, provide badges, which not only increase the interest, but create pride in the wearer; fifth, encourage officers and outsiders to attend the meetings frequently, but never allow visitors to forget that they are objects of the club's hospitality."

The Medical Department of a Modern Industrial Plant. F. O. West, M. D. Boston Med. and Surg. Jour., CLXXV, No. 25.

The modern industrial plant in question is engaged in the manufacture of phenol, benzol, and trinitrophenol (picric acid). The medical department was at first housed in a small pump-house. First aid was administered, as a side issue, by a nonmedical employee; serious accidents were cared for by the first outside physician available. Gradual evolution has resulted in the establishment of a fully equipped hospital and a resident staff. The hospital is a sheet-iron building, erected and used solely for medical purposes and containing a 4-bed ward, a first-aid room "possessing all the supplies and equipment of the outpatient surgical room of our largest hospitals," a pharmacy, a bath room, an office for the resident surgeon, a small laboratory, and a living room for one of the first-aid men. The staff consists of the resident surgeon (Dr. West), who devotes part of the day to the plant and is on call for accidents; three first-aid men, one of whom is a a pharmacist and one of whom sleeps on the premises, and a clerk. Emergency stations have also been established in all the buildings, and first-aid racks are inspected daily by a member of the hospital department. On an average, 965 treatments are given a month. One of the most important functions of the hospital department is the examination of new employees. This is especially rigid in the case of applicants for employment in the picric acid department, 9 percent of whom have been rejected for various causes.

Clinical Clerkships in the First Surgical (Cornell) Division at New York Hospital. Burton James Lee, M. D. Jour. Am. Med. Assn., 1916, LXVII, No. 25.

A plan of instruction of student clerks in the wards of New York Hospital in the service of Dr. Charles L. Gibson is said to be very successful. Clinical clerkships are provided for both fourth-year and third-year men in the second and third college terms, respectively. Sections of eight men at a time, for a period of five weeks, devote their entire time to the surgical wards in the hospital, except for two afternoons a week, when work at the college is concentrated. Students are given definite responsibilities at the outset and made to feel that they are an integral, useful part of the working force and not outsiders. Three are on duty in the operating room each day, serving as anesthetist, assistant, or in some other capacity. The remaining five are occupied with history-taking, physical examination, general and special work in the laboratory or attending general operations. Each student comes in contact with a large number of cases, and the opportunities to an ambitious student are correspondingly great. The students are given to understand that success depends largely on their tact and courtesy toward patients and nurses, and they are said to gain the confidence of patients to a remarkable degree.

The Value of Isolation Hospitals for Small Cities. Charles S. Caverly, M. D. Am. Jour. Pub. Health, 1916, VI, No. 11.

Caverly says that even passably well-equipped isolation hospitals are exceptional in rural districts and villages and in cities of less than 25,000 population. The usual procedure, when several cases of communicable disease occur in such communities, is to improvise a "hospital" in some unoccupied and isolated building. Suitable isolation hospital facilities would be a saving, inasmuch as house quarantine would be shortened and one focus of infection substituted for several. Caverly urges that the practice of consigning the isolation hospital to a remote, unfrequented spot be abandoned in favor of the policy of placing it near a general hospital and operating it as a branch of the latter. He suggests that, while it is obviously impracticable for separate small communities to operate isolation hospitals individually, by combining, several rural towns or several rural counties might arrange for adequate isolation hospital facilities.

Federal Aid for Consumptives—Would the Kent Bill Help? Gertrude Vaile. The Survey, 1916, XXXVII, No. 13.

The Kent bill now pending in Congress provides for government subsidy not to exceed 75 cents per day per patient for the care of indigent tuberculous persons who are not legally residents in the states where they are temporarily located, on condition that an equal amount is provided by the authorities in that state or someone else. Persons who come in order to receive this aid are excluded from its benefit. Transportation to the patient's place of legal residence may be provided if proper arrangements are made for sanatorium care there, but the bill expressly states that no aid shall be given toward the patient's care in his

home locality. The government may stipulate the standard of care given in any sanatorium where subsidy is given.

Miss Vaile, who is executive secretary of the Denver Department of Social Welfare, believes that the passage of the bill would increase the suffering of tuberculous people and work injustice on communities. It would increase migration of the tuberculous by removing all need for prudence; it would not relieve the burden on local authorities, who are called on to provide an amount equal to the government subsidy; it would tend to make the beneficiaries remain away from their homes long enough to lose their settlements in their home states. Miss Vaile suggests that government funds be devoted rather to investigation, education and active experimentation, and to aid of residents instead of nonresidents, residence being defined as the place where the person last had legal settlement.

County Health Administration. W. S. Rankin, M. D. Jour. Am. Med. Assn., 1916, LXVII, No. 25.

Rankin says that there are in process of development two systems of county health work—namely, the system which employs the whole-time county health officer, and the unit system. The advantage of the first plan is its relative stability; its principal disadvantage is the absence of a definite plan of work. The unit system, though lacking the continuity and stability of the whole-time county health officer plan, offers a clear-cut plan of work and a means of executing the plan. The fundamental principles of the unit system, according to Rankin, are: (1) a division of the total county health problem into a number of smaller, independent health problems or units of health work, and, (2) a contract between the state and the county, the county to appropriate funds to be used by state agents in handling one or several of these problems. For instance, a county may appropriate funds to be used by state agents in a campaign against tuberculosis or typhoid, or in a complete medical inspection of school children, or in infant hygiene work. This permits the employment, in each of these various phases of county health work, of specialists, who, Rankin believes, would be better able to devise and develop effective plans than the whole-time county health officer, who must of necessity be a general man.

Employment of Persons in the Arrested Stage of Tuberculosis. James S. Ford, M. D. Med. Rec., New York, 1916, XC, No. 27.

Ford, who is assistant physician at the Gaylord Farm Sanatorium, believes that employment has been overemphasized as a factor in tuberculosis. Often personal habits or housing or living conditions are the predisposing factors in a relapse for which employment bears the blame. It is a mistake, Ford believes, to take a patient from an indoor position and urge upon him the taking of an outdoor occupation. The only practicable callings are those of canvassers, collectors, teamsters, trolleymen, railroad hands, chauffeurs, watchmen, foremen of construction gangs, and timekeepers; and of these only the three last named can be regarded as suitable from the point of view of exposure to the elements. Long hours, small pay and consequent poor living conditions and worry, however, outweigh any advantage there may be from such outdoor occupation, in Ford's opinion. In fact, he finds that statistics show indoor work to be decidedly preferable. According to the records of Gaylord Farm for the last twelve years, of patients who returned to indoor employment, but 20 percent relapsed; of those who returned to outdoor work, 39 percent suffered relapse; while of those who previous to their illness held indoor positions, but after discharge took up outdoor work, 42 percent had setbacks. The ideal arrangement for patients with arrested tuberculosis, in Ford's estimation, is return to the old employment under medical supervision, beginning with part-time work. Thus the patient is able to try out his strength and to avoid ill effects by gradually adding to his working time under medical advice.

The Mobile Surgical Hospital "City of Milan" in the Field (L'ospedale chirurgico mobile "Citta di Milano" al campo). Dr. G. Solaro. Riv. osp., Roma, 1916, VI, No. 19.

The mobile surgical hospitals were introduced in the Italian army in order to establish a complete surgical service as near the front as possible and to take care especially of the severely wounded, whose transportation might result in grave consequences especially as regards delay in operations. Five such movable hospitals have been established and they have proved a success in every way. They are superior to the ambulance stations of the French army, which confine their work to operations and leave the after-treatment to other units of the field hospital service. It must not be supposed that a mobile hospital is always on the move; on the contrary, it is stationary and is moved to another locality only when severe fighting on another sector of the front renders its transportation necessary. Thus the hospital to which the author is assigned was originally stationed on the lower Isonzo, but when, a few months ago, the Austrians made their strong offensive movement on the Trentino front, it was transferred to that region. The time in which the hospital was taken down, transported to a distance of 150 kilometers and put up again so as to be ready for full service was only twenty-four hours. [A description of these mobile surgical hospitals was given in the November number of THE MODERN HOSPITAL.]

A Controversy Concerning the Number of Nurses in a Hospital. Nosokomos, Amsterdam, 1916, XVI, No. 40.

Complaint was made in the City Council of Amsterdam that at the Wilhelmina Hospital 700 nurses are employed for 1,400 patients. The editor of Nosokomos defends this condition: The complainants forget that in a hospital work goes on day and night, that each nurse has a day free every week, whereby the number of nurses is reduced by one seventh, that the day nurses are on duty from 6:30 a. m. to 8 p. m., that many of the nurses are just learning the profession and cannot be considered full nurses, that many of the nurses are detailed on special duties, in the kitchen, bathing rooms, at clinics and operations, etc. It would therefore be entirely wrong to conclude that a nurse had only to attend to two patients.

Miss Martha Hentschel, a nurse of Kingston, N. Y., has recently given property in Kingston valued at $50,000 for the establishment of a sanatorium for tubercular persons in the garment-making trades of New York city. Dr. Geo. M. Price, a director of the Joint Board of Sanitary Control; Miss Lillian Wahl, of the Henry Street Settlement, and one other person have been named trustees for the institution. The remodeling and enlargement of a building already on the grounds will soon be started, and it is expected that by the first of May at least 40 patients may be admitted. Miss Hentschel is herself a victim of tuberculosis, having contracted the disease while caring for tubercular patients.

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Nursing Organizations in the United States, Their Origin, Purpose, and Some of Their Results

BY BLANCHE PFEFFERKORN, B. S., R. N.

John Calder's definition of organization reads: "The art of so uniting and directing forces as to produce the most satisfactory composite results." Harrington Emerson further adds that "all modern human activity requires organization." Have American nurses recognized and applied the truth of these two statements to their own particular problem? For nursing is, indeed, "human activity," involving as it does the welfare, health, and life of the people. Realizing this fact, and appreciating their social significance, the pioneer nurses early marshaled their forces and united their efforts, that they might carry on their work in the true spirit of the times, "an organized body working for the most satisfactory composite results." The three national organizations, with their resultant achievements, indicate the measure of their success.

The founder and leader of organizations in the nursing profession is Mrs. Ethel Gordon Fenwick. Not only in her own country, but throughout the world, the impulse for group movement was stimulated by this gifted and brilliant young English nurse. In 1893 Mrs. Fenwick came to Chicago to arrange the nursing exhibit sent by Great Britain to the World's Fair. While there she conceived the idea of a nursing congress, to be held at the Fair, and offered the thought to the Chicago women on the World's Fair Board. Later, on her way home, she visited Mrs. Robb, then Miss Hampton, to talk over with her the same probability. Subsequent developments testify that her suggestions bore rich fruit. When the Congress of Hospitals and Dispensaries was organized, a nursing section was included, of which Mrs. Robb had the honor to act as chairman.

Here Mrs. Robb had the opportunity, for which, no doubt, she had been longing, of sharing with her colleagues some of her visions and hopes for the future. Among the subjects presented at the nurses' meetings were: "The Benefits of Alumnæ Associations," and "The Necessity for an American Nurses' Association." In the discussion following the reading of these papers Mrs. Robb said: "We must in time evolve alumnæ societies, an American association, and superintendents' conventions. Our meeting here is the first step; before this congress adjourns we should have a meeting to form a society of superintendents of training schools." That Mrs. Robb was only expressing a need which others felt was evident by the enthusiasm that greeted her remarks. A committee appointed from the nurses present to consider the advisability of forming a "Society of Superintendents of Training Schools for Nurses" reported that such a society would be highly desirable, and recommended rules and regulations for its formation. In this manner, in June, 1893, came into being the American Society of Superintendents, with a no less notable time and place for its birth than the great World's Fair.

Article II of its constitution reads: "The object of this society shall be to further the best interests of the nursing profession by establishing and maintaining a universal standard of training, and by promoting fellowship among its members by meetings, papers, and discussions on nursing subjects, and by interchange of opinions." In 1912 the constitution was revised and the object defined somewhat differently, in order to meet later demands. Its spirit, however, remained essentially the same. To what extent the society has attained this purpose through actual facts will be pointed out later.

When the American Society of Superintendents was organized, its active members included superintendents and assistant superintendents only. With the development of state and local leagues, the old membership requirements were no longer adequate. Necessary revisions, as deemed expedient, have been made in the constitution from time to time. At the 1912 convention the desirability of changing the name of the society was discussed. It was generally agreed that "American Society Superintendents of Training Schools for Nurses" was long and unwieldy, and for various reasons had ceased to serve as an appropriate title. The outcome was the adoption of the term, the "National League of Nursing Education."

One of the first important steps undertaken by the Society of Superintendents was the attempt to excite an interest in a National Association of Nurses, wherein every graduate nurse from a reputable school should be represented through her alumnæ. From its very inception, as shown in the extract already quoted from Mrs. Robb, the society had aimed to stimulate the organization and growth of training school alumnæ. The success of this endeavor is demonstrated by the fact that, whereas at the time of the Chicago meeting less than one-half dozen alumnæ associations existed, in two years the number had increased to thirty-one. Two papers were prepared and presented: one by Miss Palmer at the second annual convention, February, 1895, on "Training School Alumnæ Associations;" the other by Miss Dock, at the third annual convention, 1896, on "A National Association and Its Legal Organization." The first was designed to show that the time was ripe for the beginning of the larger, broader national association; the second, the ways and means by which it might be accomplished.

Following the discussion of Miss Dock's paper, a committee was appointed to call together a convention for the purpose of forming a national organization and drawing up its constitution, and to report at the next annual meeting of the society, in Baltimore, February, 1897. The convention met at the Manhattan Beach Hotel near New York, September, 1896. A constitution and by-laws were drafted for an asociation to cover the United States and Canada. The name at first selected was "The Nurses' Associated Alumnæ of United States and Canada." Later, with incorporation, it was found that the American and Canadian nurses would have to organize separately.

According to schedule, in February, 1897, the committee presented a report, with plans for the new association. Needless to say, it was accepted. Mrs. Robb was elected president; Miss Walden, from the New York Alumnæ, first vice-president; Miss Ambrose, from the Presbyterian, second vice-president; Miss Barnard, Johns Hopkins, secre-

tary; and Miss Healy, Brooklyn City, treasurer. The first annual convention of the Nurses' Associated Alumnæ of the United States took place in New York, April, 1898.

The purpose of the new organization as outlined in the Constitution, was stiff and formal. "To establish a code of ethics, to elevate the standards of nursing education, to become useful and honored" are some of its avowed objects. If, however, any confusion and vagueness existed in the mind of the infant association as to its definite goal, Mrs. Robb speedily cleared the atmosphere in her presidential remarks. In part she said: "A code of ethics is the first object mentioned in the constitution. But it cannot be among the first to be realized. . . . It should stand for deeds and actions, not words and form. Were we therefore to appoint a committee to formulate forthwith a code of ethics, we should get words, but not the spirit." A second keynote to the real business of a national organization was struck by Miss Dock in her masterly thesis on "A National Association for Nurses and Its Legal Organization." In this she states the purpose of a central body to be: "To lay down principles, keep an outlook over the whole country, support ideal standards, deliver messages embodying the object and purposes to be worked for and the reforms to be undertaken." Herein we find an aim not limited by artificial words and form, but capable of alteration and expansion to meet the ever-changing needs of the time. The rapid and natural growth and the splendid work of the Associated Alumnæ are its best proof of taking to heart the words of these two distinguished leaders.

The Nurses' Associated Alumnæ, as has already been intimated and as the name suggests, originated from a union of the existing Alumnæ Associations of Training Schools. It was incorporated under the membership corporation law of New York in April, 1901. With the development of state, county, and city associations, the membership became complicated and duplicated. At present the national organization consists of 233 alumnæ, 50 county and city, and 43 state associations, so a member of an alumnæ society may be several times a member of the central body. Other difficulties, involving legal technicalities, through affiliation with the National League of Nursing Education and National Organization of Public Health Nursing, point to the advisability of reincorporation under a national charter, and some general changes in the component parts of the asociation.

As the state and local associations developed and presented themselves for admission to the Associated Alumnæ, it became evident that some other name must be adopted. The title, "The Nurses' Associated Alumnæ of the United States" no longer defined the organization. Indeed, it was a misnomer. In the articles of incorporation, added to the constitution at the Boston meeting, May, 1911, the name was changed to the American Nurses' Association.

Any account of nursing organizations in America would be incomplete without some brief consideration of state and county societies. Mrs. Robb urged the need of state bodies at the third annual convention of the American Nurses' Association (1900). In two years, four states—New York, New Jersey, Virginia, and North Carolina—had formed state associations and had either secured or were working for state registration.

While the league has been ever active and far-seeing in proposing educational standards and advancement, to which the American Nurses' Association has given its hearty and loyal support, much of the actual "doing" has necessarily devolved on the local societies. The functions of state organizations are: "To provide legislation for registration, reciprocity, training school inspection, and to elevate and supervise the entire field of nursing in their respective boundaries.

The exigency of a national body representing public health visiting nursing was definitely experienced about five years ago. Although a number of local associations had been established as early as 1890, and the movement can be traced back to 1877, when the Woman's Branch of the New York City Mission sent the first trained nurse into the houses of the poor, up to 1912 no attempt had been made to form a national organization. By that time the need of a central body to lay down laws and give advice demanded attention. In January, 1912, a joint committee was appointed by the American Nurses' Association and the National League of Nursing Education to consider and determine methods by which visiting nursing could be systematized and standardized. The work of this committee resulted in the birth of the National Organization for Public Health Nursing. Its first president was Miss Lillian D. Wald.

The purpose of the National Organization for Public Health Nursing, as declared in its constitution, reflects the spirit of genuine social service: "To stimulate the general public and the visiting nursing associations to the extension and support of public health nursing; to facilitate harmonious cooperation among the workers and supporters, to develop a standard of ethics and technic, and to act as a clearing-house for information for those interested in such work." Perhaps the best assurance that this young association will fulfill all that it promises is found in the words on its seal: "When the desire cometh it is a tree of life."

Since the United States is one of the countries whose nursing bodies are affiliated with the International Council of Nurses, it would seem fitting in passing to say a word concerning the history of that organization. Its foundations were laid at the International Congress of Women at the London meeting in 1899. The activity of the Matrons' Council of England had secured a place for nursing on the program of this congress, thus making the first opportunity for an international gathering of nurses. Quick to follow up this vantage, in the same year at the annual conference of the Matrons' Council, Mrs. Fenwick moved "that steps be taken to organize an international council of nurses." Out of this suggestion grew that union which at the present time includes Great Britain, Germany, Denmark, New Zealand, Holland, Finland, India, Canada, and the United States. The first officers of the International Council of Nurses were: president, Mrs. Fenwick; treasurer, Miss Snively; secretary, Miss Dock, who has held that office to the present time.

In summing up some of the more noteworthy results of the work of these different organizations, it is often difficult to give credit separately, as much has been attained through united perseverance. The idea of an advanced course for nurses in teaching and administration originated with Mrs. Robb and was presented to the Society of Superintendents at the 1898 convention. Rapid action followed, resulting in the establishment of the "Hospital Economics Course" at Teachers' College, the Society of Superintendents assuming the responsibility of financing the venture. The American Nurses' Association raised $10,000 toward the necessary funds. Through the generous endowment provided by Mrs. Helen Hartley Jenkins in 1910, the Hospital Economics Course evolved into the Department of Nursing and Health, an enduring monument to the efforts and ideals of a band of noble women.

A second important movement of the Society of Super-

intendents was the promoting of affiliations between different hospitals to form efficient training groups. Little was accomplished in this line until registration was begun; nevertheless the idea was first suggested by Mrs. Robb at the annual convention of the Society of Superintendents as early as 1897. At the meeting in Boston (1896) of the same society Miss Louise Darche proposed the publishing of a journal of nursing. The *American Journal of Nursing*, now owned and published by the American Nurses' Association, was the outcome of this proposal.

The appropriateness of an Isabel Hampton Robb Memorial was discussed at a council meeting of the Society of Superintendents shortly after Mrs. Robb's death. A joint committee to devise ways and means of raising and administering such a memorial was appointed from the Society of Superintendents and the Associated Alumnæ. Later the committee included representation from the National Organization of Public Health Nursing. The result of this issue was the Isabel Hampton Robb Scholarship Memorial Fund, from which at present three scholarships are available yearly, to be used at Teachers' College or in some similar institution.

Among the special activities of the American Nurses' Association have been the collecting of a Nurses' Relief Fund and the reorganization of the Red Cross Nursing Corps on its present sound basis. This latter movement was effected through the concerted action of the American Nurses' Association and certain women prominent in the war relief work of 1898.

The growth and work of the state associations in the past sixteen years has been almost colossal. In that time forty-three state societies have been formed. In each one of these forty-three states registration has been secured. Often the laws have fallen far short of what was sought for, but they at least represent endeavor and a beginning in the ascent to higher planes.

The social value of any organized activity must be measured by its social results. If this test be applied to the various nursing organizations, will their results justify their existence? Has their progress in any degree approached their highly commendable goals, or have they aimed at the skies without even touching the tree tops? If the leaders in the nursing profession were asked such questions they would probably answer: "We are moving forward slowly, steadily, and surely, but there are worlds as yet to be conquered, and while we have barely hit the tree tops, we hope some day to reach the skies."

The National Organization for Public Health Nursing

BY ELLA PHILLIPS CRANDALL, R. N.

The National Organization for Public Health Nursing is a professional association similar in character and purpose to the American Public Health Association, the National Association for the Study and Prevention of Tuberculosis, and the National League of Nursing Education.

Its membership is composed of individuals (both lay and professional) and of associations engaged in public health and social service activities, such as visiting nurse associations, antituberculosis and child welfare leagues, departments of health (municipal and state), industrial corporations and insurance companies.

It concerns itself with progressive development of policies and methods of nursing in their relation to modern health administration, sanitary inspection, industrial welfare, insurance systems, social, mental and school hygiene, infant welfare, and medical social service.

It exists primarily for the purpose of standardization of public health nursing work and workers. To this end it develops and defines standards for organizing, financing, administering, practicing, and reporting public-health nursing. Much of this work is done by standing committees under the guidance of the executive committee. These standards are promoted through cooperation of its own constituents and other public and philanthropic agencies and national associations devoted to civic and social and public-health purposes. It encourages both the demand for and the establishment of suitable post-graduate and undergraduate education for public-health nursing, theoretical and practical. It acts as a bureau of publication and distribution, of advice and information, and of occupations.

It serves its members and others alike through the medium of executive and publication offices, an executive secretary and staff of four full-time and four part-time assistants, a managing editor and publication committee. It issues four magazines and eight bulletins annually. It provides for consultations with its executive secretary at its New York office and, by invitation of local associations, in their own cities or towns throughout the country. It conducts itineraries for her by joint arrangement of associations within specified sections of the country.

Among the national bodies with which it is affiliated are the American Public Health Association, the American Nurses' Association, and the National Conference of Charities and Correction; and membership has been applied for in the General Federation of Women's Clubs. Through the well-organized machinery of these old and established societies, it is able to reach and to inform, to serve and be served by their great constituencies which represent in large measure the essential elements of all public health nursing service, i. e., the promoters, the women's clubs, and social service agencies; the ultimate supporters and directors, the health officials, and the staff workers, the nurses.

When the organization was established in 1912, it found a comparatively new, undeveloped and little-understood field of nursing. It discovered that what was still called district or visiting nursing had grown in ten years from 53 associations and 136 nurses to 1,092 associations or other agencies and a little over 1,400 nurses. The character of their work had changed; emphasis had swung from cure to prevention, from bedside care to health education and protection. It became necessary to find a new name descriptive of the character, purpose, and scope of the new and varied activities, and one which would unmistakably relate them to the modern health movement, in response to whose impelling momentum they had come into existence in rapid succession. Hence, the present-day public-health nurse of whom it has been said: "She is a product of evolution. She has developed from the old-fashioned district or visiting nurse, who visits and nurses the sick, poor patient in his home. She is still that same visiting nurse and also, according to the demands of the community which she serves, a public-school nurse, an infant welfare nurse, a tuberculosis nurse, a hospital social service nurse, a sanitary inspector, a truant officer, a social worker, a visiting dietitian, and even a midwife."

The new organization found these 1,400 workers, for the most part, scattered and unrelated and unacquainted. Almost without exception, the vision of the workers, both directors and nurses, was bounded by their local horizon. There was little or no literature, no common purpose, no great ideal. Few had established any policy or program of development; sound business principles in their manage-

ment were equally lacking and practically nowhere had the work been related to the community health as a whole.

Many and powerful influences have been at work during the past four years and not least among them has been that of the National Organization for Public Health Nursing, which can fairly be said to represent public-health nursing activities of all kinds in 47 states of the Union, of which there are now 2,100 agencies and 5,500 nurses, there being only two states in which no public money is spent by city, county, or state for some form of public-health nursing work. The organization's register numbers approximately 1,700 individual members, and the enrollment of directors and staffs and supporters of its corporate members represents many hundreds more.

It has organized state units in 17 states, and many others will have completed similar organizations before January 1, 1917. It is developing a state council composed of one lay and one nurse member from each state, which has already proved itself an invaluable medium of communication, information, and influence.

It has drafted standard articles of organization, rules nursing for undergraduate students in schools of nursing and has secured for it the unanimous endorsement of the National League of Nursing Education. A committee of its members appointed by the National Association for the Study and Prevention of Tuberculosis has drafted a similar course in tuberculosis education for student nurses which was adopted at the last annual meeting of that association.

It has actively cooperated with thirteen colleges and universities in planning or establishing post-graduate courses for public health nurses and with six state departments of health in developing state programs, which include public health nursing. It has rendered special services to many state antituberculosis associations and women's clubs, municipal and county departments of health and education, and to the Federal Children's Bureau, the National Association for the Study and Prevention of Tuberculosis and of Infant Mortality, and the American Association for the Study and Control of Cancer.

It has drafted standard articles of organization, rules and regulations of administration, and record cards for visiting nurse service. It is at present working out similar record blanks for the various specialized forms, such as tuberculosis, infant welfare, and school nursing and also for financial and statistical reports. It has, through the voluntary work of Miss Yssabella G. Waters, compiled the only complete directory of public-health nursing in the United States and its island possessions, which will appear in book form early in 1917.

It has exercised a constant and strong influence among nurses in behalf of adequate qualification for the work and among employers for salaries calculated to attract the highest type of women. Many associations which formerly would have said, "Do we need a trained nurse?" now write, "We will pay $100 per month and we will wait indefinitely, if we must, but we can accept only a fully qualified nurse." It has availed itself of every possible opportunity to address women's colleges and normal and technical schools for the purpose of interesting larger numbers of educated women, and to the same end, it has made formal overtures to the General Federation of Women's Clubs in behalf of better standards of nursing education and legislation, and the extension of public-health nursing.[1]

The field work of the secretary during the past year involved traveling to the amount of 22,793 miles. A more or less typical visit to a city of average size may include addresses before public audiences in church, city hall, chamber of commerce; before student and graduate nurses; before women's college or normal school, county medical society and teachers' association, and general citizens' meeting; conferences with representatives of all health and social workers, often including health officer, superintendent and medical inspector of schools, with board of directors of visiting nurse association and with public-health nurses.

Some of the immediate results of these visits are reorganization of all public health nursing in a community under a joint committee, thereby strengthening the entire service, saving money and increasing public support; separation of health work from charities;[1] introduction of a fee system; improved standards of work and workers; improved records; better salaries; calls to fill important new offices recently suggested; organization of new associations; many letters of further inquiry; and, occasionally, an urgent call for a return visit within four or six weeks.

The current year has been marked by removal into new and delightful offices, 20 percent increase in the budget, the addition of two new members to the office staff, subdivision of the work into departments, and an enlarged program of work in every department.

The organization is maintained on a membership basis ranging from one dollar to the large annual subscriptions of sustaining members, for which it depends on its two able committees on membership and finance. It is governed by a board of directors, all of whom are necessarily nurses, owing to the conditions of affiliation with the American Nurses' Association. It is highly favored in having the moral support and guidance of its most honorable and honored Advisory Council, the personnel of which is as follows: Prof. C. E. A. Winslow, chairman; Miss Mary Beard, Dr. Hermann M. Biggs, Miss Mary Magoun Brown, Dr. Lee K. Frankel, Mrs. Helen Hartley Jenkins, Miss Julia C. Lathrop, Mrs. William K. Vanderbilt, Miss Lillian D. Wald, Dr. William H. Welch.

Its program for 1917 is in the making, and all its members agree that the future is brighter and clearer than ever before. With the motive found in the words of our beloved Florence Nightingale and the flattering encouragement so generously expressed by our good friend, Dr. William H. Welch, we have no choice but to press forward:

"District nursing is desirable if from a merely economic point of view. It often prevents whole families sinking into poverty and vice, the consequences of which take vengeance on society."—Florence Nightingale, 1870.

"The most distinctive service which America is rendering to the world today in public health is that of the visiting [public-health] nurse."—William H. Welch, M. D.

SMALL HOSPITALS DOING VISITING NURSING[2]

The general assembly of the National Organization for Public Health Nursing, in session at New Orleans, gave serious consideration to a discussion of the growing tendency on the part of small hospitals to send out undergraduates to do visiting nurse work. The Executive Committee have, therefore, endorsed for publication the following letter:

The advent of the public-health nurse as a community servant has brought with it an old evil in modern form. It is an old story that *student* nurses used to be sent into homes for private nurse service, either to swell the income of the hospital, or to supplement the inadequate training available within the institution, or sometimes because graduate nurses could not be had. Whatever purpose was avowed for this obviously unfair practice, it robbed them of larger clinical experience and of necessary supervision, and deprived them of their classes and lectures. All of these were their rights as students, but this fact was ignored and they were used either consciously or unconsciously as free labor by the hospital.

Nowadays, small hospitals in rapidly increasing numbers are essay-

[1] Reprint from Bulletin No. 10 of the National Organization for Public Health Nursing, on the subject of "Small Hospitals Doing Visiting Nursing," is appended to this article.

[1] A statement of the position of the organization on this subject is appended to this paper.

[2] Reprint from Bulletin No. 10, National Organization for Public Health Nursing.

ing to do visiting nursing, apparently for much the same reasons as were proclaimed in behalf of sending students into private homes in earlier days; and, also, as an attraction to prospective students. In other instances there is an honest desire on the part of managers of hospitals to serve the community in the largest possible measure, for the idea of medical social service has permeated all parts of the country and the extension of hospital functions beyond the hospital walls, together with the economy of caring for *convalescent* patients at home rather than in the institution, are interesting boards of directors, both for their economic and their humanitarian values.

Furthermore, boards of education, antituberculosis and infant welfare societies, and visiting nurse associations frequently find it necessary to increase their staffs to meet the growing demand for service and yet lack funds with which to pay more salaries. Therefore they are quick to urge the hospitals to send out their students to meet this public need and to justify their doing so by the assumption that the out-door experience can and ought to be regarded as valuable "training." Both the hospitals and the public health associations are hearing that the word has gone forth from various national organizations that schools of nursing must provide some education for this new field of nursing and must affiliate with colleges, universities and public health nursing agencies in order to do so. Hence many of them honestly believe they are acting in harmony with the progress of the day.

For this very reason, it is imperative at this time to overcome all possible misunderstanding on the part of hospitals, schools of nursing and student nurses, of all interested associations and of the public itself, by pointing out in this connection (as has been done countless times regarding student service in private homes) the radical difference between the status of student nurse practice in visiting or other public health nursing services under adequate supervision (for which the student is carefully graded and credited) and that of either a substitute or regular *free* worker in behalf of a needy cause. In other words, that the school of nursing which can and does add public-health nursing to its *curriculum* and makes it an integral part both of the theoretical and practical *education* of its students is rendering an immediately and universally needed service to its own community and to the country. On the other hand, any hospital or school of nursing which sends out its students, or any public-health nursing association which uses students as free labor is exploiting the student nurse and is bound sooner or later to discredit its own work. We believe that competent instruction and close supervision must be added to public-health nursing *experience* before it can worthily be included in nursing training.

There should be no possible confusion between the affiliations of teaching bodies and the contracts of agencies for work.

STATEMENT OF THE POSITION OF THE NATIONAL ORGANIZATION FOR PUBLIC HEALTH NURSING ON RELIEF-GIVING

The fourth annual convention of the National Organization for Public Health Nursing in New Orleans was distinguished for its vigorous handling of several vital questions, but only one could be said to have taken precedence over that of relief-giving as a factor in public health nursing.

It was naturally raised by the Round Table on Rural Nursing, for it is fair to say that it is not so vexed a question for any nurse in communities where organized charities exist. However, they referred it, in the form of a resolution, to the general assembly, which considered it in larger aspects.

It was clearly the consensus of opinion that where organized charities exist nurses are obligated to limit all relief-giving to that which can be strictly interpreted as emergency relief. It is highly desirable, even in such cases, that it be refunded by the charities, upon formal request of the nursing association.

However, because charity organization societies are often slow to act even where acute illness prevails, and because there still exists honest conflict of judgment regarding the priority in importance of health and social needs, also because there is rarely any recognized source of material aid other than the churches in most small towns, villages and rural communities, public-health nurses are often made responsible for relief as well as nursing care.

Nevertheless, each of these arguments was regarded by the majority as a remediable evil to be overcome as rapidly as possible, in view of the generally conceded fact that relief-giving hampers the health work of the nurse by curtailing her influence and authority in health matters and in the homes and in the community by stamping her as a charity worker and thereby limiting her services to the charity receiving class. So strongly were these facts urged that it was difficult to gain support for a modified resolution, framed particularly in behalf of the rural nurse to the effect that "in communities where no organized charities exist, the public-health nurse shall, whenever possible, effect the organization of a voluntary relief committee through which she will work and which shall be entirely separate and apart from the visiting nurse association."

Status and Standards of Dispensary Practice

The *California State Journal of Medicine* remarks that in the development of the present-day hospital system the growth in size and departments of the out-patient departments has been faster than their growth in efficient methods of practice and administration. There is no doubt that the out-patient department and dispensary have come to stay, and that the growing demand for their services will lead to still greater development and extension in the near future. There is reason for believing that the dispensary will come to be one of the chief agents in public health and preventive medicine propaganda. It has been recognized of course as a feeder for the hospital. But equally important or even more so is its function in following up post-hospital cases both for treatment and for data on end-results. A specialized feature of dispensary practice is its application to preventive medicine. This is exemplified in the infants' milk stations and children's clinics, the tuberculosis clinics and the social service features which are coming into increasing prominence. The dispensary system is being utilized to good advantage, too, by industrial concerns, both for treatment and for prevention.

WEST VIRGINIA'S NEW NURSING LAW

State Proposed to Set Rigid Requirements in Hospitals and Training Schools—Many Institutions May Have to Close

As the state legislature is about to meet, we are trying to whip into shape the suggestions approved by the hospital association of the state and the Graduate Nurses' Association, making a more effective law to control the registration of nurses and providing some inspection of the schools of the state; in short, instead of having a board of six doctors who once a year meet and examine the persons who present themselves, with practically no restrictions whatever, we are setting forth certain restrictions, such as, no one may take the state board examination who does not come from a recognized hospital. A hospital to be recognized must, first, have a three-year course; second, it must not send out its pupil nurses for private duty; third, it must comply with certain detailed requirements regarding the subjects taught and length of course, etc.

Then the board is directed to employ a graduate nurse as permanent secretary, whose business it will be to keep its records and to make regular inspections of all of the schools for the training of nurses, as well as the hospitals in connection therewith in this state. The proposed legislation has the approval of the present board of examiners; in fact, it is being prepared partly at their suggestion.

The funds for the support of the permanent secretary will be obtained from the registration fees and an additional fund to be provided by the state. Heretofore the board had not been allowed to use the surplus obtained from the registration fees for any purpose connected with the hospitals, but had been required to turn it over to the general fund of the state.

For those schools unable to provide a complete three-year course for their nurses, a provision is made that after having given two years, they may send their pupils to complete their course in a hospital of approved standing. In fact, it will be required that the special hospital giving a course of training send pupils to an approved hospital for a completion of their course.

There is considerable likelihood that the state hospitals known as Miners' Hospitals Numbers 1, 2, and 3 will come up for some legislation, just what we cannot yet tell. Many of the privately owned hospitals are determined they shall be legislated out of existence. My personal opinion is that instead of being emergency hospitals they may be turned into hospitals for some special diseases.

PLINY O. CLARK, Field Editor.

In a report soon to be presented by the Oklahoma State Board of Education to the state legislature it will be recommended that an appropriation of $200,000 be made for the erection and equipment at Oklahoma City of a general hospital to be maintained by the state primarily for the benefit of persons of small means who need hospital treatment. The plan provides for a graduated system of fees to fit different degrees of financial ability. Indigent patients would be cared for without charge. Physicians generally are supporting the movement, it is said.

DEPARTMENT OF DIETETICS

Conducted by MISS LULU GRAVES,
Dietitian of Lakeside Hospital, Cleveland, Ohio.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Lakeside Hospital, Cleveland, Ohio.

Cooperation With the Dietitian

Miss Smedley's able management of the school luncheons of Philadelphia has given to the school children of that city such great benefits that we wish everyone might know it. Probably in no other city is there such a systematic and in every way satisfactory working out of the school luncheon problem. Reading Miss Smedley's account of what she is doing will convince one that this is true, though she is very modest about it. Dr. Garber has set a very high mark for the school dietitian, and we suspect that his own school dietitian is the standard which he is asking the others to attain.

Everything that Dr. Garber says in regard to the school dietitian is equally applicable to the hospital dietitian. In the field of preventive medicine, or treatment, there is almost no limit to the things that might be accomplished by close cooperation of the dietitian, the physician, and the visiting nurse or dietitian, for home teaching.

The Cooperative School Luncheon System of the Philadelphia Board of Public Education

BY EMMA SMEDLEY, Director.

Educators realize more than ever before in the history of education the importance of physical factors in the education of the child. Consequently the modern school house is better lighted, better heated, and better ventilated. Medical examination of school children has done much in preventing the spread of contagious and infectious diseases and in correcting ocular, oral, and nasal defects. There is still one important factor in the physical development and mental efficiency of the school child that has not received all the attention to which it is entitled—the subject of school feeding.

In Philadelphia the high school sessions are from 9 until 2 o'clock; therefore the need of provision of lunch is obvious. This holds good also in many of the elementary schools, the special classes all having a session from 9 until 2. The distance of the home from the school is to be considered, as many homes are at such a distance that there is not enough time for the child to go home, eat its lunch and return in time for the afternoon session. In many homes in certain sections of the city there is no provision made for the noon luncheon because the parents go to work early in the morning and do not return until evening. In a recent investigation made by the Department of Superintendence in one section of the city, it was found that 8 percent of the children came to school with no breakfast and 60 percent with insufficient breakfast, therefore it seems incumbent upon the school to provide some means whereby the children may secure wholesome food while at school with the pennies given them by their parents.

In 1909, when the William Penn High School was opened, the principal, Dr. Herrick, dissatisfied with the old type of lunch counter run by the janitor then in vogue in other high schools, appealed to the Board of Education and received permission to try a luncheon experiment

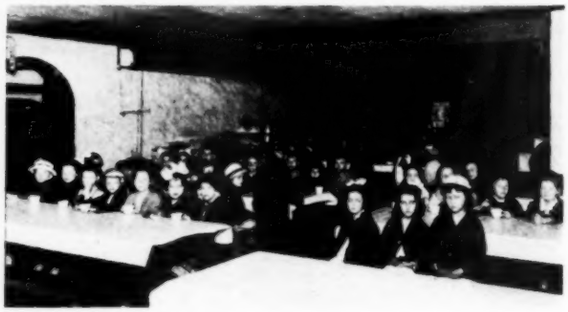

Fig. 1. Typical Philadelphia elementary school lunch room. Supply closet, counter with wire screen in front, tables and benches all made by boys in manual training classes as regular class work. Sink, stove, and cooking utensils supplied by Board of Education. One woman worker at school, and children assist with serving at counter.

which should be under the control of the school. The work was begun under the care of a committee of the Board of Education, consisting of the chairman of the committee on high schools, one other member of the committee, the principal of the school, and one of the teaching staff. A trained dietitian was selected as superintendent of the luncheons and was given authority to engage assistants, purchase food supplies and arrange the selling prices to cover the cost of the food and service. The Board of Education provided the lunch room, light, heat, gas for cooking, and the necessary equipment.

At the beginning of the following school year the board declared the work no longer an experiment and extended it to include several other schools. In 1912 the board

Fig. 2. Typical Philadelphia high school kitchen, showing electrical equipment, steam cookers, range, fireless cooker, and gas oven. Noonday meal provided from this kitchen to 2,500 persons.

recognized the work as an important educational movement and established a Department of High School Luncheons to include lunch service in all of the high schools. In the meantime a committee of the Home and School League was conducting recess lunches as an experiment in nine of the elementary schools, and in May, 1915, they reported to the Board of Education that they had successfully demonstrated the necessity for and the practicability of a luncheon system, but realized that such a system could not be successfully carried on by an organization apart from the school management.

Therefore, prior to the summer vacation of 1915, upon the recommendation of the Department of Superintendence, the Board of Education authorized the continuation of this work and the establishment of a lunch service in twenty-five additional elementary schools, all under the supervision of the Department of School Luncheons. The director of school luncheons was also invited by the principals of several additional schools to assume control of the lunches which had been conducted independently by the teachers in their schools. Consequently during the past year the Department of School Luncheons has directed the provision of morning recess and noon luncheon in about fifty schools, with the result that approximately fifteen thousand pupils in the high schools and about thirty-three thousand pupils in the elementary schools spent $150,000.00 for clean, wholesome, palatable food, well cooked and attractively served. Of this, 66 percent was expended for food, 32 percent for supervision and wages, and 2 percent for repairs and replacing equipment.

The practical result of the school luncheon is made manifest in the increased mental activity of the pupil. His working efficiency is closely interwoven with his health and his health with the kind of food he eats. The ill-nourished child is a poor subject for education, and as hundreds of thousands of dollars are spent each year upon that education, it becomes an important economic duty to secure the best possible results by supplying the necessary material for growth of a strong, healthy body. To quote from a recent report of Dr. Garber, superintendent of the schools:

"The evident benefits from the luncheons in the elementary schools have been so great that, as rapidly as they can be established upon a self-supporting basis, the system should be extended to all of the elementary schools. If for no other reason, this should be done to protect pupils from unripe and decayed fruit, the impure candies, and the generally unsanitary lunch material which they will otherwise purchase from street venders.

"In order that the school lunch may attain the maximum of service there must be hearty cooperation between the faculty of the school and the school dietitian; therefore her training and personality are very important. She should be a person of broad views and wide sympathies—

Fig. 3. Typical lunch room in Philadelphia high school, showing counter in distance, with steam-heated closet for dishes, and menu board above counter. Swinging stools under tables. Noonday meal is served here to 2,200 persons.

a college education is desirable, though not absolutely essential. She must, however, have a thorough training in food values, and in the principles of nutrition—she must know how to cook food well, and to serve it attractively.

"The dietitian must have business ability. She must be able to 'strike a good bargain' and to arrange the selling prices of the foods so that she may be able to meet all expenses from luncheon receipts. Much depends upon wise buying. A bad purchase may lead to the curtailing of expenditures in other important departments where saving is dangerous.

"The dietitian needs an inexhaustible fund of good humor. A smiling countenance does much to relieve the tension in many trying situations. She must have poise, be quick to act and ever ready to meet an emergency. Above all, she must have a love of human nature and be a living embodiment of tact. In dealing with food we are likely to come in contact with human nature 'in the raw,'

and it sometimes requires all the finesse of which one is capable. She must be able to meet all types of people and be equally at home with the delivery boys, the janitors, the children, and the faculty of the school.

"One of the problems facing the school dietitian is the general lack of knowledge of food values and the family prejudices in regard to food entertained by her patrons. Under these conditions she must be watchful lest she yield to popular opinion and forget that she is an educator and a missionary as well as an administrator.

"It is her duty not only to teach the children to avoid unwholesome foods, but she has the greater task of training them to enjoy the many varieties of food at our command.

"Ignorance in regard to food value and the cost of food and the cost of cleanliness is often the cause of criticism and of lack of cooperation on the part of the faculty, and it is the work of the dietitian to gain their cooperation, for the school and the community will never reap the deepest educational or social benefits that the lunch room may afford until the faculty of the school awakens to its possibilities and cooperates heartily with the dietitian."

Fig. 4. Staff of dietitians of the Philadelphia School Luncheon System.

The story of this cooperative system of school luncheons under the control of the Philadelphia Board of Public Education is graphically shown by means of motion photography. The picture consists of five reels of noninflammable film representing different phases of the entire luncheon system. It has been prepared with the idea of conveying to educators and to the public in general the necessity for the wholesome school lunch, and the method of successfully conducting this self-supporting system in Philadelphia.

The Chemical Composition of Commercial Glucose and Its Digestibility

BY DR. J. A. WESENER AND PROFESSOR G. L. TELLER of the Columbus Laboratories, Chicago, Ill.

[Continued from the January issue.]

In our work on glucose, referred to in the preceding articles, we have determined, by calculations based upon their quantity as determined by reduction and upon the amount of gas developed by fermentation with yeast, that the fermentable reducing sugars are a mixture of maltose and dextrose. The amount of gas thus produced is too large to allow the fermentable sugars as determined by reduction to be calculated wholly as dextrose and too small to allow their being calculated wholly as maltose. With different lots of glucose the relation of the maltose to the dextrose and the amounts of each will vary to some extent. Determinations on two samples show 11.7 and 17.2 percent of dextrose and 22.9 and 16.4 percent of maltose, respectively.

Further researches led to the conclusion that at least three reducing bodies are normally present, namely, maltose, dextrose, and a third, which is less readily fermentable by ordinary bakers' yeast, but which may be made fermentable by the action of certain enzymes, especially those present in pancreatin, Taka-Diastase and malt, as well as the hydrolytic action of dilute hydrochloric acid under the influence of heat. These difficultly fermentable reducing bodies amount to about 14 percent of the total glucose when calculated as maltose, or 8 percent when calculated as dextrose. The unfermentable carbohydrate residue remaining after removing the maltose and dextrose by fermentation consists of those bodies commonly recognized as dextrins. These, like the unfermentable reducing bodies, when subjected to hydrolytic action by diastase result in products which will under suitable conditions undergo almost complete alcoholic fermentation. When they are subjected to the hydrolytic action of hot dilute acid, applied either to the unfermented glucose or to the residue left after the glucose has undergone alcoholic fermentation, all of these bodies become wholly fermentable.

Cold water extract of malt as the source of diastase was found less suited for the purpose than pancreatin or Taka-Diastase because of the larger proportion of unfermentable bodies which it contained and introduced into the products of fermentation.

It was found that a good quality of Taka-Diastase converted the unfermentable products into fermentable sugars, leaving only a very small amount of unfermented residue, which contained as reducing sugars less than 1 percent of the glucose taken. In the most favorable instances the total unfermented residue amounted to from 4 to 5 percent and included normal products of fermentation, notably succinic acid and possibly some glycerin, which always results from the fermentation of sugars by yeast. The diastase present in good samples of pancreatin and in the cold water extract of malt in like manner converts the unfermentable residue of the glucose into fer-

mentable sugars, but in some instances less completely than does Taka-Diastase.

In these experiments it was found that the kind of yeast used had a considerable influence upon the completeness of the fermentation of the products produced by the action of the several diastases.

Isolated ferments like pancreatin and Taka-Diastase lose their activity with age, and when these weakened ferments act upon glucose the result of the decreased vitality is a decreased proportion of immediately fermentable sugars, with an increased proportion of the unconverted dextrins and of the intermediate unfermentable reducing carbohydrates or reducing dextrins. These conditions are also clearly apparent where weakened pancreatin or weakened Taka-Diastase or a limited amount of diastase acts upon starch of various kinds. The apparent results of such action are an extended series of products, including the well-recognized dextrins, unfermentable reducing bodies (apparently reducing dextrins), maltose and dextrose. The fact that the first bodies in the series are found to a limited extent only when there is a sufficient amount of the active diastase present, but are abundant when there is a limited amount present, indicates that they belong to a natural series of changes between starch and dextrose. The results of our examination of glucose and of the products of the combined action of diastase and yeast upon glucose, indicate that all the bodies of this series are normally present in glucose which is produced by the incomplete hydrolysis of starch by acids, just as they are present in liquors containing the products of the incomplete hydrolysis of starch by diastase, and that these bodies in glucose yield to further treatment with diastase, just as do those produced by diastase itself. From these facts it is apparent that the claim for the presence in glucose of unfermentable reducing bodies as reversion products brought about by the action of the acids at a high heat is untenable.

A study of the action of hydrolytic agents and yeast on carbohydrates entering into common foodstuffs, such as potatoes, breakfast cereals, bread, and so forth, and upon pure starches, such as are found in these various food products, has been made in comparison with parallel experiments on glucose. In these experiments it was found that the carbohydrates of glucose agree closely in gas production with the carbohydrates of the more readily digestible foodstuffs, such as white bread, breakfast cereals and potatoes. It was also found that these several carbohydrates, when acted upon by isolated ferments and yeast, as in the experiments conducted, yield variable but appreciable amounts of unfermentable carbohydrate products, just as the mashing of cooked starch with malt diastase in the making of malt liquors results in a liquor which, after fermentation, contains appreciable quantities of such unfermented and apparently unfermentable carbohydrate products.

The fact that commercial glucose, when it is treated with diastase and then subjected to yeast fermentation, is almost wholly converted into alcohol and carbon dioxid goes to prove that it consists of products that are wholly assimilable and, therefore, it furnishes a food to the body of a sugar nature. In this respect it is a more concentrated and at the same time a more readily assimilable food than are most of the carbohydrates belonging to the ordinary foodstuffs which first have to undergo cooking and then complete hydrolysis by the action of the digestive enzymes before they can be utilized by the body. In this respect glucose, pound for pound of dry weight, will furnish at least as much energy as does cane sugar.

SOCIAL HYGIENE
VENEREAL DISEASES

Conducted by WILLIAM F. SNOW, M. D.,
General Secretary, The American Social Hygiene Association.

Please address items of news and inquiries regarding Social Hygiene to the editor of this department, 105 West Fortieth street, New York City.

Recent Public Health Activities of the New York Social Hygiene Society

BY F. J. OSBORNE, Executive Secretary New York Social Hygiene Society.

HEALTH EXHIBIT FOR MEN

The latest and most far-reaching educational experiment for the reduction, diagnosis, and treatment of venereal diseases was the men's exhibit held at Coney Island during the past fall. This exhibit was prepared by the New York Social Hygiene Society cooperating with the American Social Hygiene Association, the genitourinary department of the Brooklyn Hospital Dispensary, the New York City Health Department, and the Public Health Committee of the Kings County Medical Society.

This exhibit is based on the same psychology which has made it possible for medical institutes and quack doctors to flourish. Many of these doctors formerly maintained, and some maintain even to this day, anatomical and medical museums which served as feeders for the doctors' private practice, it being recognized that the most opportune time to supply medical advice and treatment is when the demand, either real or imagined, has been aroused by viewing the display of models, illustrations, or other exhibit material which may bring questions of sexual weakness, impotence, or actual infection forcibly to the mind of the visitor. Realizing that much of the information contained in the ordinary quack museum is inaccurate, exaggerated, and morbid, we have attempted in our exhibit to replace much of the ignorance and misinformation with actual medical facts, both individual and social. By showing by parallel series of color pictures the cause, treatment, and possible results of these diseases, we have succeeded in putting forth a message of real enlightenment on these subjects which could hardly be done as effectively in any other manner.

By also paralleling proper with improper treatment of these infections we have done much to make these men realize that gonorrhea is a real disease, curable only by early and conscientious treatment, and with the most deplorable results to the individual and his family if treated with indifference and neglect. We have likewise pointed out the same lesson in the care and treatment of those infected with syphilis. We have endeavored to replace the imperfect treatment of this disease on the one hand and the utter abandonment of hope of ever again being cured on the other with the scientific and latest medical knowledge which says that this disease is also curable if taken in hand in the early stages and treated persistently under the care and guidance of a reputable physician.

One of the most interesting charts in the exhibit is that composed of quack signs taken from public toilet rooms around the Island, with the admonition to "avoid those doctors who advertise to cure you," and with a list of fake, false, and misleading statements culled from these same signs. On other charts warnings against illicit intercourse with prostitutes are set forth; the four famous sex lies are displayed; diagnostic, advice, and treatment posters and placards from local and state boards of health from all over the country are presented; and the organisms, carriers, and the sufferers depicted. Along with these are two charts containing the latest

Fig. 1. One of the health exhibits for men.

statistics on these two diseases compiled by the New York Health Department.

One of the most notable instances of thoroughgoing cooperation ever enjoyed by this society is that of the Brooklyn Hospital Dispensary staff, who are supplying the advice service in connection with this exhibit. Already, during the first month, 110 men suffering either from recent, acute infections, or from old, chronic conditions, have applied for advice, blood tests, and treatment, and have been referred to that clinic approved by the health department situated nearest their homes.

During the first month of this exhibit, July 21 to August 30, inclusive, 11,521 men visited it, each of whom was supplied with literature furnished either by the American Social Hygiene Association or the health department.

We feel that this exhibit is filling a long-felt need, and expect to move it around the city during the coming winter, and have hopes of having it reproduced, either photographically or by lithography, in order that every section of Greater New York may be reached.

SOCIAL SERVICE WORKER

Another interesting experiment of the society is that of cooperating with the New York Hospital to supply a social worker for follow-up work in their syphilis clinic conducted by Dr. James Kent. It is fast becoming known that to treat these diseases only medically and purely from the point of view of the infected individual is short-sighted and solves only a part of the problem. The family and society have certain rights in connection with any campaign of control of the infected and prevention of the spread of these diseases, and a tactful, earnest social service nurse or worker should prove most valuable in aiding the dispensary physicians in holding the individual to treatment, in home instruction, in establishing cooperative contact with other organizations, by encouraging other members of the family to be examined, and, if necessary, to undergo treatment, and by verifying the source of infection in order that steps may be taken to eliminate known foci. Much valuable information is expected from this cooperative experiment.

DISPENSARY INVESTIGATION COOPERATING WITH THE HEALTH DEPARTMENT

Another matter just being taken up in cooperation with the venereal disease advisory committee of the health department is the investigation of clinic facilities and methods of treatment employed in these clinics. The question has been raised whether the already existing clinics are in a position to handle the venereal problem of the city adequately, and, if it is proved that they are not able so to do, either because of there being too few clinics or their methods of treatment not being effective, the department will be requested to take under consideration methods of licensing and control of these clinics.

CAMPAIGN AGAINST QUACKS AND THEIR ADVERTISEMENTS

The campaign against quack advertisements is also under way. The recent decision of the Oregon Supreme Court upholding the Oregon law which prohibits the pub-

Fig. 2. Another of the health exhibits for men.

lication of advertisements regarding medicines for the cure of venereal diseases, or intended to imply that the advertiser could cure such diseases, leads us to hope that public opinion, and through it the legislative bodies, are in the proper frame of mind and sufficiently informed to enact such a law even in the conservative East, and steps have already been taken to this end. In short, the society is embarked on a well-rounded public health campaign, realizing that until ignorance and indifference have been supplanted by facts and scientific public health knowledge, no hope for the ultimate control of these diseases is possible, and these measures, supplemented by sane, carefully prepared lectures, with circulation of authoritative literature, are looked to with increasing confidence as the approved methods of combating venereal infections and establishing a rational sex life.

The Providence Hospital, Oakland, Cal., hopes to erect new quarters in the near future and toward this end will open a campaign about February 15 for a building fund of $150,000.

INDUSTRIAL WELFARE

WELFARE WORK IN AGRICULTURE[1]

* * *

The United Shoe Machinery Company Applies Efficiency and Economy to Its Broad Acres in Beverly for the Welfare of Its Employees—Every Man His Own Gardener

BY WILLIAM H. WALSH.

If you would see a practical example of welfare work, of economy and efficiency as applied to farming, come out with me to Beverly, and to the broad acres at the back of the United Shoe Machinery Company's factories, where upwards of 150 gardens are now in a fair state of cultivation and "fit for the harvest." These farms—or, to be more precise, gardens—cover about 350,000 feet of the company's land, and occupy the greater part of the island-like territory lying east of and adjacent to the big shops.

Fig. 1. Officers of the agricultural division. Top row, left to right—Edwin McGill, director, 1915-16; M. S. Demeritt, secretary-treasurer, 1915-16; H. B. Ellis, president, 1915-16; W. H. Titus, vice-president, 1915-16. Lower row, R. C. Simmons, director, 1915-16; A. H. Davenport, director, 1914-15; A. H. Woodward, director, 1915-16.

They belong to the employees. In other words, the company, to carry out its policy of intensified cooperation between employer and employee, every year allots certain portions of land for cultivation. It does something more. It prepares the land, putting on manure, ploughing and harrowing it, and charging the holder the bare cost of the labor. The plan of allotment is very simple and eminently fair, giving to every "farmer" employee 2,500 square feet of land. This year, for example, the number of gardens actually allotted and cultivated is 140, or nearly double that of a year ago, showing the ever-growing interest which is manifested in this branch of the service.

As far back as 1911, although the idea of allotment had its inception and was in actual operation for several years previous, certain of the gardenholders got together and formed a Gardeners' Club, with R. C. Simmons as president and Harry Ellis as secretary. Then, in September of that year, when the first "Sam Sam" was held, the show of vegetables and flowers was so attractive that it has been a feature every year since. This spring Mr. H. B. Ellis was elected president, with M. S. Demeritt as secretary and treasurer, and they both have worked so faithfully that, despite the rainy weather and the consequent difficulty of raising and harvesting, the results have been for the most part satisfactory.

It was predicted with reasonable assurance of fulfillment last spring that, with favorable weather, a banner crop would be had, but the continuous wet weather for July and August gave the farmers their full share of trouble and greatly reduced their average of production. Still, in some individual cases the crops have thriven wonderfully, owing, of course, to the special care, muscular enthusiasm, and responsive brains of the particular farmer.

Fig. 2. Looking east across the garden of M. S. Demeritt. This represents the second crop of cabbages, brussels sprouts, beans, and celery after harvesting a crop of peas, early beats, and early beans. The foreground shows a crop of late vegetables.

"The whole trouble with some of our farmers," said Mr. Demeritt, "is that they don't put the necessary patience and enthusiasm into this work. They seem to think that all they have to do to raise a good crop of beans or potatoes is to seed the ground and then forget it until it is ready for harvesting. If they tend it at all, it is in a half-hearted way, and, of course, it is not a bit surprising that their crops are small or a failure, whereas the one next to theirs may be in a flourishing condition. But there are not many of that kind, and the only reason I mention them is to prove that it takes brains to run a garden as much as is required for bookkeeping or any other form of mental effort. Indeed, from my experience I am not sure

Fig. 3. Garden of Egidio Romani.

[1]This article was submitted in September, at harvest time.—EDITOR.

that the accounts of a farm are not every bit as complex as those of a store, or, for that matter, of a factory. You see there is always so much of detail that comes directly in the matter of household expenses. And just here is where the wife comes in, and, if she is so inclined, she can be of immense assistance, not alone in caring for the garden, but in the harvesting and economical part as well. Take, for example, my own wife, who is as enthusiastic about the little farm as I. She comes here and sees to it that the potatoes, beans, brussels sprouts, and other vegetables are coming along all right, and then she knows just when and how to pick them for the table without wasting

Fig. 4. Garden of W. H. Titus. Mr. Titus is considered one of the most successful gardeners at the factory, and he is proving to the "boys" this year that he knows how to raise celery.

any. I have been able to harvest my crop of potatoes already this year, and to plant a big bed of brussels sprouts and several rows of celery in their place. There, you perceive, is what can be done with the proper amount of patience and elbow grease. I figure that I will have all my vegetables for the table this year for nothing, and that my garden will have yielded me about $30.00. Of course much of my success is due to experience and the correction of the mistakes of previous seasons. This spring I went about my farming systematically. In the first place, I measured the piece of ground allotted me, got the exact width and length, made a sketch of my plot, and laid it in rows to correspond with what I wished to plant. I was at particular pains to go over every foot of the land with my rake to secure a fine seed bed, as well as to destroy all the weeds in embryo. Next I drove stakes to correspond with the space allotted each variety of vegetables to be planted. The advantage of this was obvious, for it obviated any chance of wasting space, and did away with the possibility of guesswork planting.

"From the time of seeding on April 19, clear to the harvest, my Garden Bountiful, as my wife loves to call it, took up about all our leisure time, and we have had more real pleasure from it than I can tell you, not to mention the enjoyment of having fresh vegetables for the table and the satisfaction of knowing they were of our own cultivation.

"Then, again, it is some satisfaction, and I suppose I may be excused if I say that I took a great deal of pride, in having been awarded the first prize at the Sam Sam exhibition. On arranging the vegetables, a few of each kind, I then fully realized what a varied lot of good things one can raise on a 2,500-foot piece of ground.

"It may be interesting to say that we expect to lay away for winter use not less than seventy-five quarts of canned vegetables. The credit for the canning rightly belongs to Mrs. Demeritt, who managed to secure the second cash prize at the Sam Sam on preserved fruits and vegetables."

This year, for the first time, the members of the agricultural division decided that prizes should be given among the gardeners, and $60 was subscribed by the members for that purpose. Immediately it was seen that the prize scheme meant a keener interest in the farming and a lively competition, with the result of a highly satisfactory display. In addition to the vegetables raised, there are numerous flower beds around the employees' homes, which are planted and tended by them, and the prizes were made to include these as well as the vegetable plots. This agricultural and flower show at the Sam Sam was open to the public to exhibit, and all small garden growers had an equal chance, but, notwithstanding, the best displays shown were by the United Shoe Machinery Company employees.

It is a curious fact that the Italian gardener on those plots seems to get the most out of the land, particularly in the matter of certain kinds of vegetables—as, for example, snake beans, tomatoes, peppers, and kale. Perhaps the reason for this is that these immigrants, brought up to farm work as they have been across the ocean, are thoroughly experienced, and, moreover, the practice of working in the fields is a custom to which the women of Italy, Syria, and Poland are used. At any rate, it is a fact, demonstrated almost any day at the United Shoe Machinery Company's farm, that scores of the Italian women are to be seen settling down to work weeding, planting, and transplanting with a thoroughness that is truly remarkable. The Italian gardener cultivates his plot very thoroughly, working the soil deeply, using extra fertilizer and manure water early and late, and stirring up the soil to the utmost. Sometimes a whole family may be seen working together. It is noticeable, too, that he very

Fig. 5. Interior of the locker house. Here the gardeners store their tools, working clothes, etc. About twenty of the gardeners assembled one Saturday afternoon and set up all the lockers—and "it was some job."

rarely plants a considerable variety of vegetables, confining his cultivation to tomatoes, corn, beans, peppers, and kale, hardly ever planting potatoes. He is a great economizer of space, planting oftentimes two rows of a vegetable where it would seem there is room for only one to grow, and so making the most out of his garden. An interesting thing in this connection is that many of the Italians still cling to the old-fashioned superstition that, in order to get a good crop of corn or tomatoes, it is necessary to do the planting only at the full of the moon. They who believe in this will shake their heads when they notice the Americans planting at other times. The average

Italian grows his vegetables tall, and for this reason probably raises more to the square yard than does his neighbor, the Yankee. As one of the American farmers remarked, "When it comes to working the soil, he gives as much attention to it as a mother would to her child."

The garden of Egidio Romaniis is as fine an example of the truth of these statements as any. It shows conclusively what can be accomplished when it comes to tilling the soil, and, as an illustration of the Italian methods of gardening, it is without a peer. With a soil that is naturally light and devoid of the necessary moisture-retaining properties, he has by constant labor brought his garden plot to the highest possible state of cultivation and fertility. Daily during the summer months he can be found at 5 o'clock in the morning busily hustling in his garden. So it is until near 7, and then, after a hard day's work in the foundry, the call of the garden keeps him until dark, hoeing, weeding, carrying water to supply the much-needed moisture and revive the drooping plants, and giving them such attention that it seems almost like devotion. The other gardeners wonder at it, and simply applaud him, without fully understanding how he manages to get such maximum returns—such a bountiful harvest.

The vegetables grown in the average garden are such as are the most needed for domestic consumption, such, for example, as potatoes, beans, peas, corn, beets, cabbage, onions, carrots, turnips, brussels sprouts, lettuce, tomatoes, cucumbers, parsnips, summer and winter squash, celery, spinach, salsify, kale, peppers, melons, and pumpkins. This list includes about everything grown on the farms, and is sufficiently varied to show the different tastes of the gardeners.

It is interesting, indeed, and sometimes humorous, to watch the struggles of beginners with their gardens. For the most part they are very enthusiastic in their undertaking, and start off willing to do no end of labor to insure a successful harvest; but in the majority of cases they soon tire of the "grind" of planting and weeding, and manuring and watering, and it is there that the want of thoroughness and systematic planting is most surely obvious. Also, it is there that the Italians have the advantage, for they go about the work always with a thoroughness that is remarkable. Weeding, for illustration, is a task that the average man dislikes as much as anything about the farm, but it is one that demands continuous attention, and, if it is neglected, the crops will inevitably suffer.

In the seeding, too, the utmost skill in the selection and planting are necessary, and it is here that the ignorance of the average beginner shows up very clearly. As an instance of what will sometimes happen if due care is not taken in the selection of seeds, one of this year's gardeners purchased what he supposed was a collection of short and long radishes, and proceeded to plant and cultivate them. He watched them as they gradually appeared above ground, and the looks of them soon satisfied him that they were not radishes, and to him they looked for all the world like a luxurious weed. He accordingly asked one of the other gardeners what kind of a vegetable it was, and told him that he had ordered radish seeds. "Why, my man," said the farmer, "ye ain't got no radishes there. Them's cabbages, or I'm a lobster." The result was that the beginner pulled up all his plants, and then had the discomfiture of being afterward told that he had destroyed an excellent bed of brussels sprouts.

Recollect that the work in those gardens for the most part is done by the employees themselves at such times as they can spare from their labors in the factories. On a Saturday afternoon or a holiday the landscape is dotted with those busy gardeners, and they seemingly take the greatest delight in their self-imposed labor. Some of them are genuine farmers, and to all such the head gardener, as well as the officers of the agricultural division, give the greatest encouragement. It is a matter of pride to see how much they can raise in a season, and the matter of rotation in crops accordingly receives a lot of individual attention. They plan the gardens so that from the time of the first planting until the frost the entire piece of ground is at work producing edibles.

In this connection a word from Mr. James R. Tappan, the head gardener, may not be amiss. He is himself a thorough believer in the idea of the farms as something calculated to benefit the workers, and as an excellent illustration of the company's policy of cooperation between employer and employee.

"We don't want any make-believe gardeners here," said Mr. Tappan. "When a workman applies for a garden, and it is allotted to him, he is supposed to take care of it; and not only the plot, but the walks around it. If he neglects to do this, the chances are against his being able to get a plot the following year. Of course we are reasonably careful about the allotments, but we mean to be strictly fair and liberal, depending on the efficiency of the holder of the piece of ground for the returns. In the matter of the individual profit from the land, I should say that, granting about the average efficiency, with the rotation of crops, each farm should show a net profit of from $20 to $30."

Much of the credit for the success of the gardens is due to Mr. Tappan, who is the "outside man" at the company's plant, and who sees to it that the grounds surrounding the factories are kept in order.

It is a truism that where you find a man who loves flowers, you almost invariably find an honest man. That being the case, the farmers at Beverly may be put down as model citizens, for they are, without exception, enthusiastic lovers of flowers. Every year the company heightens their interest in flowers by a liberal distribution of plants from their extensive conservatories.

Not a little enthusiasm and some keen competition was engendered this year by the announcement of cash prizes at the Sam Sam celebration for the finest display of vegetables and flowers and fruits, as well as fancy work and poultry. These prizes were in addition to the regular premiums, of which there was a far greater number.

Mr. Demeritt reports that the number of employees of the United Shoe Machinery Company who subscribed for gardens this year, and who actually worked in them and secured a crop, was 150, the greatest number thus far in the history of the association. The cash prizes which were subscribed by the members amounted to about $150.

The erection of five tuberculosis wards for the Los Angeles County Hospital, Los Angeles, Cal., will be started at an early date. Each unit will consist of two one-story wings, each 44x150 feet. An inclosed corridor 10 feet wide and 1,100 feet long will connect all of the new structures with the administration building of the County Hospital. A section of the roof of each wing will be movable, being carried on separate steel trusses and operated by electric motors.

It has been announced at San Diego, Cal., that E. W. Scripps, head of the United Press and the Scripps list of newspapers, will donate $250,000 to found a diagnosis clinic and a hospital in that city.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.,
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

The Growth of Dispensary Work[1]

The committee is glad to be able to present to the association an encouraging report of progress during the past year. We do not mean the progress of the committee, but the progress of dispensary work.

We were charged, among other duties, with the task of preparing a list, as complete as possible, of the dispensaries and out-patient departments in the United States. We already had a list of about 400 institutions having dispensaries or out-patient departments. We sent out reply postal cards to 1,500 hospitals, these being practically all the public hospitals in the United States, with the exception of 500 from which we already had information. Of the 1,500 to which postal cards were sent, 600 institutions returned the reply card, and 200 of these hospitals maintained out-patient departments and 400 did not. Of the 900 that did not send back the reply postal cards, probably the majority had no dispensaries, which is merely a guess.

Table I gives the results of our inquiry, including both the dispensaries previously known and those ascertained through the postal card canvass. By out-patient department we mean a dispensary which is part of a hospital, and by dispensary an institution which has no hospital—merely out-patient clinics.

TABLE I. DISPENSARIES AND OUT-PATIENT DEPARTMENTS IN THE UNITED STATES, 1916[2].

	Known	Additions estimated	Total
Treating general diseases—			
Out-patient departments of hospitals	495	150	645
Dispensaries unconnected with hospitals	185	70	255
	680	220	900
Treating special diseases	60	40	100
Public health dispensaries—	In 1904		In 1906
Tuberculosis	20	.....	500
Baby hygiene	0	.....	400
School children	0	.....	250
Psychiatric, dental, etc.	0	.....	150
	20		1,300
Summary—			
General dispensaries and out-patient departments			900
Special dispensaries and out-patient department			100
Public health dispensaries			1,300
Total			2,300

In 1904 there were about 200, and in 1910 about 700.

This list includes only dispensaries and out-patient departments treating general diseases. Special dispensaries, such as for eye, ear, nose, and throat, tuberculosis, etc., are excluded. The striking fact about this list is the remarkable increase in the number of institutions shown in comparison with earlier years. There are about 2,000 general hospitals in the United States which may be rated as public hospitals, the remaining number, 5,000 or 6,000, being private institutions or sanatoriums. Of these 2,000 public hospitals, we now know that 500, or one-quarter, maintain out-patient departments. This is double the percentage which prevailed in 1900, when the United States census investigated the subject. In 1800 there were 3 out-patient departments and dispensaries in the United States; in 1904 (when the United States census made a survey) there were only 150 general dispensaries; in 1910, when the Federal census made a second survey, there were 400; in 1916 we know of 700, and undoubtedly there are at least 200 more institutions which did not send back the postal cards. We may say conservatively that there are fully 900 dispensaries in the United States treating general diseases, of which a majority are out-patient departments of hospitals and a minority are dispensaries, independent of hospitals. This means that dispensary work for general diseases in the United States has multiplied six times in twelve years, so far as the number of institutions is concerned, and has more than doubled within the past six years.

A still greater advance is shown if we consider other types of dispensaries. There has been a very remarkable growth in organized attempts to prevent tuberculosis, infant mortality, the diseases of school children, etc., and these organized attempts have, in considerable measure, resulted in the establishment of clinics. In 1904 there were about 20 tuberculosis clinics in the United States; in 1916 there were at least 500. The infant hygiene movement is still more recent. Seven years ago there were hardly any special baby welfare clinics in the country; and today there are about 400. The medical inspection of school children has convinced many communities that it is not enough merely to find out the defects of school children—bad eyesight, bad teeth, enlarged tonsils, postural defects, heart diseases, etc.—but that it is necessary to take at least some steps to provide means for the children of the poor families to have these defects corrected. From reports which have been kindly furnished the committee by the United States Bureau of Education we learn that there are at least 250 school children's clinics in the United States, mostly for treating the eyes, throat, and teeth of pupils in the public schools.

Another remarkably rapid movement, dating back hardly more than five years, has been the growth of psychiatric clinics. Hospitals for the insane have established out-patient departments both for the purpose of taking care of discharged patients who would benefit by supervision, and also of examining and treating persons suspected of mental disease or defect. Massachusetts has established such psychiatric clinics in connection with every one of its insane hospitals; a similar movement has made great headway in New York, and is advancing elsewhere. A large number of psychiatric clinics have been started in connection with juvenile courts and with public school systems. A few large institutions have been founded especially for psychiatric work, such as the Phipps Clinic in Baltimore and the Psychopathic Hospital in Boston, and these have largely and finely developed their out-patient departments.

Still another hygiene movement has led to dental clinics, many of which have been added to general dispensaries, but in numerous instances they have been established separately—sometimes in public school buildings,

[1] Report of the Committee on Out-Patient Work presented at the eighteenth annual conference of the American Hospital Association, Philadelphia, September 26-29, 1916.

[2] In 1910 the United States Census reported 350. Adding 100 as probably omitted in their report gives 450 in the United States six years ago.

sometimes by charity organization societies, visiting nurse associations, etc. A few large dental clinics have been founded, notably the Forsyth Dental Infirmary of Boston.

There is a marked tendency in the older communities for the tuberculosis dispensaries to broaden their work and take in other diseases than tuberculosis. Many of the tuberculosis clinics are broadening into small local dispensaries treating general diseases, or health centers, as they are often called.

Special hospitals for gynecology, eye diseases, nose, throat, and ear, orthopedic troubles, and nerve cases have in many instances established dispensaries. We know that their number is at least 75, as we have a list of about that size, and there are doubtless more of which we have not heard.

The growth in the number of dispensaries is the first, but not the only, feature to which we would call attention. Dispensaries are becoming more and more widely distributed over the United States. Table II exemplifies this.

TABLE II. DISTRIBUTION OF DISPENSARIES AND OUT-PATIENT DEPARTMENTS TREATING GENERAL DISEASES IN THE UNITED STATES, 1916.

State	Number	State	Number
New York	145	Rhode Island	9
Pennsylvania	123	Wisconsin	8
Massachusetts	67	26 other states	89
Illinois	45		
New Jersey	40	Total known in United States	680
Ohio	30	Estimated additional dispensaries	70
Missouri	29	Estimated additional out-patient departments	150
Maryland	24		
District of Columbia	17	Total	900
Michigan	17		
Connecticut	16		
Minnesota	11		
Virginia	10		

Fifteen years ago New York, Pennsylvania and Massachusetts contained about 60 percent of all the dispensaries of the United States and today they have only 40 percent. We may note as a very recent occurrence the rise of dispensary work in the southern states. In Memphis, Tenn., under the leadership of the Associated Charities (Mr. J. P. Kranz, secretary), a useful dispensary center has developed which has just been joined with the Medical School of the University of Tennessee. At Chattanooga, Tenn., at such various points in the South as Little Rock, Ark.; Jackson, Miss.; San Antonio and El Paso, Texas, dispensaries have similarly grown up out of the joint initiative of medical and charitable agencies.

We trace not only a growth in the number and a widening in the local distribution of dispensaries, but also an advance in attention to quality and methods of work. The Association of American Medical Colleges, at its annual meeting in Chicago eight months ago, included in its proceedings a report by a Committee on Medical Teaching in Dispensaries, which is a useful document for every superintendent, whether there is medical teaching in his dispensary or not. Many suggestions concerning dispensary methods are included.[1]

We can see how during the past year, as demanded by this report, teaching institutions of standing have been seriously addressing themselves to the task of putting their dispensaries on a level of equipment, organization, and service equal to the rest of their work. We see this in St. Louis, where during the past year and a half there has gone on a remarkable expansion of the fine new dispensary now part of the group of buildings of the Washington University at St. Louis, conjoined with the medical school, the Barnes Hospital and the Children's Memorial Hospital.

[1]The report was printed in the Journal of the American Medical Association, April 8, 1916, and reprints can be obtained by writing to Dr. George Blumer, chairman, Yale University Medical School, New Haven, Conn.

Another development of the same order is the coordination of all teaching dispensaries in Columbus, Ohio, under Dr. E. R. Hayhurst, well known as the officer of the Department of Health of the state. Among smaller dispensaries we see similar examples of progress. The Hartford (Conn.) Dispensary has reconstituted itself both in plant and organization within the past year. In a number of communities there has been a city physician, paid usually a small amount, to treat the poor of the community either in their homes or at his office, his work at the office being something like a dispensary clinic, but necessarily inadequate as to equipment and affording no opportunity for consultation among specialists. This inadequacy has been recognized recently in several communities. In El Paso, Texas, a dispensary with a staff of specialists, working cooperatively and at specified hours in their several clinics, has grown out of the former plan under which one city physician treated the patients individually. In St. Louis it is announced that the office hours heretofore held by the city physician will be abolished and a definitely planned city dispensary will be developed in the immediate future out of the old inadequate scheme. The same plan is under consideration in St. Paul, Minn.

As in the previous year, the committee has sent to the leading out-patient departments and dispensaries a circular asking for reports of progress or changes made during 1915. We sent out about 350 last year and about 450 this year. Last year we had only 75 responses, but this year we have had almost 150. Evidently a good many institutions are waking up to their dispensaries and are pushing them. Last year we were able to note that the improvements had chiefly taken place along the lines of medical equipment, in particular the x-ray department and the laboratory. Again this year we find 70 institutions, or about half, reporting improvements in their x-ray equipment and in their laboratories. Next in frequency comes the attention to social service. Seventeen new social service departments are reported to have been established during 1915, and 29 existing social service departments have been enlarged by the addition of one or more new paid workers. Another phase in which improvement is quite frequently reported is in the admitting system. More care is paid to the recording and admission of new patients. Closer connection of the hospital with the out-patient department through coordination of the medical staffs, and through other modes of closer relationship, is reported in 14 cases. Quite a number of new kinds of clinics have been established during the past year. Most frequent are the prenatal or obstetrical clinics, started in 8 institutions. Occupational disease clinics have been established during 1915 at the Massachusetts General Hospital and at the Hospital of the University of Pennsylvania. Mount Sinai Hospital in New York has started a whooping-cough clinic. A special gift to Johns Hopkins Hospital has been devoted to the establishment of an elaborately organized syphilis department in their dispensary. Pay clinics, with salaried medical staffs, designed for working persons of moderate means, who are charged moderate fees, have been extended by the Boston Dispensary, where they were started three years ago, and have been taken up by the Brooklyn Hospital, also proposed by Mount Sinai Hospital in New York, but not yet established there. The establishment of the consultation clinic of the Massachusetts General Hospital is one of the notable events of the year. Patients are admitted for consultation only, on a physician's recommendation; no treatment is given, but a report of the diagnosis is given to the physician. A fee of $5 is charged the patient.

The committee has given special study to two subjects which appear on this program. Last year a subcommittee of our group rendered a brief special report on the organization and management of clinics for syphilis and gonorrhea. Venereal disease is more and more recognized as a problem of public health affecting the community as well as the individual sufferers, and organized efforts are being made in many localities to improve facilities for its diagnosis and treatment. During the past year the committee has placed itself in relations with the American Public Health Association and the American Social Hygiene Association, and we are fortunate in securing Dr. William F. Snow, secretary of the latter body, to present a special paper on the subject of venereal disease clinics. The material for this has been gathered jointly by our own committee and by Dr. Snow's organization.

Industrial accident cases in dispensaries is our second special problem this year. This is an outgrowth of the laws which since 1911 have been passed in no less than thirty-three of the United States, providing for compensation to working men and women for industrial accidents. Many of the superintendents here have already faced the question as to what shall be done with the workmen's compensation cases in their hospital wards and their outpatient departments. Suppose a man has suffered an accident in a factory. Under the law he is entitled to medical treatment for a certain period, usually two weeks or more following the accident, and during the period of his incapacity he will also receive one-half to two-thirds of his usual wages. Suppose such a man appears at a dispensary for treatment. If he is accepted and treated as an ordinary case, the dispensary is giving him charity, which under the compensation law ought to be and can be paid for by the industry in which he worked. To treat him as a "charity case" is hardly fair to the institution, the doctor, or the patient. We have corresponded with hospitals and with officials of industrial accident commissions in about ten states of the Union. We find that workmen's compensation cases have raised medical and financial problems in many dispensaries, that they have become an acute issue in a few cities, and that the issues are rapidly shaping up, so that hospital superintendents should discuss them. A definite policy should be formulated in order to protect the interests of all concerned. At the present time procedures fluctuate. No less than six different methods of dealing with industrial accident cases can be cited.

First, a dispensary may refuse treatment on the ground that these are not cases for charitable care. Inasmuch as some of these cases are emergencies, the dispensary often could not exclude them even if it wished to do so. Then there are many cases which may or may not be industrial accident cases, depending on the decision of the industrial accident board or of some legal authority. The policy of total exclusion has, therefore, been found impracticable.

Second, some dispensaries treat an occasional industrial accident case just as they do other cases—for nothing, or for their regular nominal fee. Where the number of industrial cases is very small, there is not enough of a problem to make it worth while to treat them as a special group.

Third, in some of the dispensaries in New York and elsewhere one treatment is given and the patient is then referred to a member of the medical staff according to some rule of precedence. The patient thus becomes the private case of the surgeon to whom he is referred. Some institutions allow the surgeon to treat the patient at the dispensary, but to send his bill to the industrial board, or other proper local authority. This is the practice in some of the dispensaries in California and Ohio, and doubtless elsewhere.

Fourth, other institutions require that the surgeon to whom the industrial patients are referred shall treat them at his private office.

Fifth, the dispensary accepts and carries on the treatment of the industrial accident case, but, instead of the usual nominal fee, it charges a higher fee—for instance, $1 per visit—and collects this fee by sending a bill to the insurance company or industrial accident board. In the Massachusetts General Hospital and in many hospitals in Philadelphia this is the practice, and the hospital keeps the fee. The surgeon gets nothing.

Sixth, in other institutions, however, as in the Brooklyn Hospital, a portion of the fee is paid over to the surgeon treating the case, the remaining part being retained by the institution.

Not a few large industries or insurance companies have solved the difficulties of medical care for industrial accident cases by employing their own "shop physicians" and having their own hospitals and dispensaries. This is a growing practice, which may have far-reaching consequences if it continues to extend.

It is quite evident that where the number of industrial accident cases applying for treatment at a dispensary is a very minute proportion of the total number of patients, the problem is not likely to receive very serious attention; but when the proportion of cases is large, or the number is intrinsically great, the problem then becomes a serious one. In any case the principle involved is of great importance.

A number of the state commissions for administering the workmen's compensation laws have evidently appreciated that if these industrial cases are treated in dispensaries, the fees usually allowed the private practice in similar cases should be paid. Some of the state boards have not yet ruled on the subject, and some now have it under consideration.

Should a charitable dispensary meet the expense of treating industrial accident cases and receive no return? Surely this is unfair. Is it, however, fair that the physician or surgeon should treat them in the dispensary for no financial return? Is it, indeed, fair that industrial cases should be treated any way but as private cases of a surgeon? We have seen, however, that in practice these cases could not be wholly excluded from a dispensary, and that employers and insurance companies are developing special dispensaries for them; in fact, there are many instances wherein it is questionable whether the diagnostic resources of a well-equipped dispensary do not make institutional treatment preferable to private treatment. The broad question arises as between private versus institutional treatment of industrial accident cases.

Here we face a problem of much difficulty. Views as to what ought to be done and how it ought to be done will conflict. We cannot solve, we can merely open up, the problem. Clearly, we cannot deal with the industrial accident cases in hospitals or dispensaries merely by aiming to protect the interests of our institutions. Doctor, patient, and public must also be considered. We are very glad that we have been able to induce Dr. John B. Andrews, secretary of the American Association for Labor Legislation, to speak on this subject in order to point out the broader public issues which come up in connection with industrial cases in medical institutions.

We wish, in concluding this report, to point out what

is really the most significant advance in dispensary work in recent years. The vast increase in the number of dispensaries, their extension into small communities which a few years ago did not know such institutions, and the improvement in methods of dispensary work—all these are but the reflection of a general sentiment on the part of both the medical and the lay public that better care for the health of the people must be furnished. Years ago dispensaries were regarded as medical soup-kitchens, which doled out medical relief, chiefly in the form of a little advice and many prescriptions. Dispensaries were also thought of as adjuncts to medical schools to provide "clinical material." But a new point of view illustrated by the report of the Association of Medical Colleges has now appeared: the dispensary must nowadays be taken seriously by the medical college, treatment of patients must be thorough, medical study of patients must be careful, and the interests of the community in preventing as well as curing disease must be borne in mind. In other words, dispensaries are now seen to be essential adjuncts in any system of providing medical care for the masses of the people. During the past year there have been, for example, two studies made by the Russell Sage Foundation of the public health activities of Springfield, Ill., and Topeka, Kan., and there has also been published a study of the provisions for caring for sickness in Dutchess County, N. Y. All these studies have resulted in recommendations that dispensaries be established or enlarged to meet the needs of the working people of the community. In other words, the interest of the community in promoting the public health has seized on the dispensary as a weapon of attack, both in curing and in preventing disease. It is directly due to this that we have seen the wonderful growth of dispensaries for combating tuberculosis, infant mortality, dental diseases, troubles of school children, etc., which have been referred to in this report. During the next few years we shall see the force of the same interest, the same public health movement, get behind the dispensary treating general diseases. The establishment of still more new dispensaries will be promoted, and existing institutions will be assisted in enlarging and improving their service.

The growth and influence of dispensaries is well shown in another very practical way—namely, by the rise of organized opposition on the part of some of those who fear the dispensary will injure their private interests. In New York this is illustrated by the activities of the so-called medical economic leagues. In several other cities, notably Pittsburg and St. Louis, there have been brought up various crystallized issues concerning dispensary work and publicly fought out within the past year. Such opposition is a stimulant rather than a deterrent to dispensary progress.

Because of the rapid growth of dispensaries and of the increasing interest in their work on the part of hospitals themselves and of the general public also, this committee believes that the American Hospital Association should have a standing instead of merely an annually appointed committee on this subject. Five of the present six members of this committee have served for three years, but each year the committee has had to come to the association with a request that its very existence be continued. Furthermore, the powers of this as a special committee are confined merely to making a report of conditions of dispensary work. A considerable number of inquiries concerning methods and standards come to the members of the committee, and there is evidently opportunity of doing constructive work, which would be of service to the many institutions represented by this association which maintain dispensaries and out-patient departments. We have, therefore, prepared a resolution, which will be presented by one of the members of the committee, for the purpose of forming a standing committee on dispensary work, and we trust that it will be thought of sufficient practical value to the members of this body to justify the passage of this resolution.

MICHAEL M. DAVIS, JR., Boston, Chairman; JOSEPH B. HOWLAND, Boston; W. G. NEALLY, Brooklyn; G. W. OLSON, Minneapolis; RALPH B. SEEM, Baltimore; A. R. WARNER, Cleveland, Committee on Out-Patient Work.

A NURSES' HOME BUILT BY NURSES

The Battle Creek Sanitarium and Hospital Training School for Nurses to Build Model Structure

What might be described as a home of the nurses, by the nurses, and for the nurses, is to be built this year by the Battle Creek Sanitarium and Hospital Training School for Nurses. The future occupants of the structure are to be, in a measure, partners in the enterprise. As far as possible the plans will be drawn to meet their desires. For instance, a census will be taken to find how many prefer single and how many double rooms. The new students nearly always want roommates, as they suffer more or less from homesickness, and some of the older ones also like to have chums.

In financing the home, the nurses are taking an active part. The intention is to have accommodations for 300. It is likely that the cost, including furniture and fittings, will be something like $200,000. Of this $100,000 is to be raised by the sale of twenty-year five percent bonds. The nurses are busily helping to raise the money. A number have bought bonds out of their savings, and others have induced patients and friends to subscribe.

The faculty of the school has taken liberally of the securities, and the male nurses in one office promptly wrote their names for $1,000. Over $21,000 was raised in a few days.

Making Rounds an American Custom

The custom of "making rounds" was adopted in the first hospital of America—the Pennsylvania Hospital. The anecdote is told by Dr. Rush, that entering the ward with his group of students, he stopped at the threshold, and directed attention to a patient: "Please to look yonder, in the corner of the room, where that poor man lies who has been so long and so dangerously ill. I wish you to note that he is now lying upon his side. That's all for the present." When they stood beside the bed, Dr. Rush continued: "You remember, young gentlemen, that when we entered the ward by yonder door, I stopped, and called your attention to the fact that this man was lying on his side, as you now perceive, and this was the first time for many days. I took it for granted that his strength was increased, as he could not have done so else; for a man in a low, nervous fever, entirely insensible, and barely still alive, can by no means change his dorsal to a lateral decubitus. I was much pleased, gentlemen, to observe this favorable omen from the door, and now you will find by his pulse, his breathing, his improved animation, for he actually recognizes and speaks to us, that he is decidedly better, leading us to expect that the crisis is past, and that he will entirely recover ere long."—Albany Medical Annals.

QUERIES AND ANSWERS

The Paint Peels Off

To the Editor of THE MODERN HOSPITAL:

Will you be good enough to inform us as to the best way of finishing the walls of our operating room? The building was erected five years ago. The outer walls are of hollow tile, the inside of which is plaster and enamel paint. The paint keeps peeling off. Do you think it would be best to cover the walls with canvas and apply more paint, or is there some special surface material to apply for operating rooms? The last few coats of paint were evidently so-called patent paint and do not adhere to the previous coats. WISCONSIN.

Unfortunately, it is impossible to put a good paint that will hold over a poor paint that is not holding, and we are quite sure that the only solution of your problem is to remove the first paint that was put on your operating room plaster, and then put a good enamel on in two or even three coats.

The Best Signal System

To the Editor of THE MODERN HOSPITAL:

Please give us your opinion of the light as compared to the bell signal system for a 40-bed hospital. We are new at hospital building and need help. TEXAS.

The bell signal system about which you ask is practically obsolete for hospital use. It places the burden of about four times the amount of work on the nurse, and the bell itself is a nuisance in a hospital. There are several lighting systems, any one of which can be simplified or elaborated to make it conform to your wishes. Three or four companies make entirely acceptable signal systems for hospitals. You will find the advertisements of all these companies in THE MODERN HOSPITAL, and if you will tell any one of these companies just what you want, or will give them your problem, they will design for you a system that will be economical in construction and get the work of your nurses to a minimum when it comes to operation. Please do not think of putting in the bell-ringing system. It is about fifteen years out of date.

Cold Ward Floors

To the Editor of THE MODERN HOSPITAL:

We are about to begin erecting a hospital. The floors are to be of a colored cement which will be cold to convalescents climbing out of bed and dangerously slippery to the injured ambulatory cases. What would you suggest to be placed in front of beds in wards and in the aisles for the purpose of preventing slipping to those who are on crutches, keeping in mind the volume of labor required for care of the floors? WESTERN MINING HOSPITAL.

The Peter Bent Brigham Hospital, of Boston, met the problem of cold floors that confronts you by putting blocks of linoleum, about 6 feet by 10, where each bed is to stand and setting it into the composition floor so that it is flush with the surface. We are not sure that this plan works out well because the beds may not always stand in the same place, and, after all, linoleum is not so very much warmer under the feet of bare-footed patients than one of the cement compositions.

If we had your problem we should use bedside rugs, about 3 feet by 6; these rugs can be taken out and cleaned; they can be moved whenever necessary, from place to place, and they give an air of coziness to a ward.

Some hospitals that have these hard floors run a linoleum runner down the middle, where the aisle is to be, and that has a certain effect on the imagination. It does some good for the nurses' feet, but we do not think it solves your problem. Your crutches can be shod with special rubber tips, made and sold for the purpose, and these really do prevent the slipping of the crutch.

The Staff in a Small Hospital

To the Editor of THE MODERN HOSPITAL:

As a subscriber to THE MODERN HOSPITAL, I would value your advice on the following subjects:

What would you consider an adequate nursing and domestic staff for a hospital of thirty beds arranged as follows?

The basement contains kitchen, staff dining room, laundry and store rooms.

The first floor contains operating room, anesthetic room, linen room, office, ward kitchen, bath room, etc., and one ward with four beds and one with three.

The second floor contains one ward with six beds, one ward with four beds, one with three beds, kitchen, linen room, bath room, etc.

The old building, connected by covered passage, has one ward with four beds, one with two beds, and four single wards.

Average number of beds occupied, probably twenty. Class of patients, municipal—no free wards. Maternity cases, average six. Medical and surgical cases, almost equal. Higher average of female than male cases.

I would also be indebted to you if you could tell me where I could procure full information regarding the training of practical nurses for the people of moderate income, such as homesteaders on the Canadian prairie, the nurses being in demand mostly for maternity work. And what would you advise in the case of a small hospital like this, which will hardly attract probationers, being unable to rank as a training school, and yet will find it costly to employ all graduates?

A SASKATCHEWAN HOSPITAL.

The reply to this inquirer is given by Miss Anne W. Goodrich, of Teachers College, Columbia University, and Editor of the Department of Nursing, THE MODERN HOSPITAL.

Basing our estimate on a comparison of the staffs of several efficiently managed institutions—one of which employs only graduate nurses—in which the daily average of patients ranges from twenty to thirty, we would recommend for this institution the following nursing and domestic staff:

Superintendent of the hospital	1
Assistant superintendent and housekeeper	1
Night superintendent	1
Graduate nurse in charge of operating room	1
Graduate nurse in charge of maternity service	1
Graduate nurses on general duty (three of whom shall be on duty at night)	9
Bookkeeper and stenographer	1
Engineers (one day and one night, or one engineer day and one fireman night)	2
Orderlies (one day and one night)	2
Porter	1
Cook	1
Waitress	1
Chambermaid	1
Cleaners	3
Laundresses	3

We do not believe that an institution having less than a daily average of thirty patients should establish a school

of nursing, and we are interested to note that in the report of the Committee on Investigation of Training Schools for Nurses, which appears in the *Canadian Nurse*, September, 1916, it is stated that in British Columbia most of the very small hospitals have no training schools, but are in the hands of graduates only. If it is impossible to withstand the pressure to establish a training school, it would then become necessary to provide as first assistant a competent nurse instructor, a dietitian who could also act as housekeeper, and to substitute for the nine nurses on general duty, a pupil force of not less than eighteen, since the affiliations required to supply the deficiencies in the hospital service would necessitate courses extending over at least a year, meaning the continual absence of one-third of the pupils in the school. Various other adjustments attendant upon the maintaining of a school would not make the remaining force (12) any too large, if indeed sufficient.

We could not recommend the establishment of an attendant course to provide nursing care "for people of moderate incomes, such as homesteaders on the Canadian prairie." The very isolation of these homes points to the necessity of in some way providing skilled nursing care. It is possible to conceive that a group of women instructed in the simpler nursing and housekeeping procedures could materially aid the nurses of the Victorian Order, and we would therefore suggest obtaining information regarding this from the chief superintendent, 578 Somerset St., Ottawa. We are under the impression that a connection has been made by this order with some of the hospitals in rural communities. If the training of such attendants were undertaken, the number would have to be limited, and it would not greatly change the graduate nurse staff required. On night duty the number could only be lessened by one, and on day duty possibly by three. A competent nurse instructor and instruction under a dietitian would not be less important for this group than for a group of pupil nurses. We do not believe, therefore, that the establishment of such a course, under proper conditions, would materially decrease the cost of the nursing staff to the institution.

Operating Room Floors

To the Editor of THE MODERN HOSPITAL:

I thank you for helping me about the heating of our hospital. The advice you gave us settled the matter. We would appreciate some suggestions regarding what is the best material to use for operating room floors.

NORTH CAROLINA.

It is highly essential that we have a floor in the operating room that shall be impervious to fluids and consequently, microorganisms; it is also necessary that we have a floor that can be easily and quickly mopped and that will dry quickly. Another demand is for a floor on which the nurses will not slip, because quick foot work is often demanded.

We have become accustomed to the small vitrified white tiles. They can be had in the one-inch square mosaics in figures, set in cement, or in the six-sided, 3-inch slabs, or in the 6-inch square slabs. All of these are set in cement and are practically impervious, especially if there is a cove base of art marble or terrazzo, and the top of this cove base should run flush with the wall surface.

We cannot see any objection to the 6-foot width battleship linoleum, in the yellow or fawn color, provided the linoleum is thoroughly well laid, cemented at every part, with joints sealed by the cement. If you are going to lay it over a board subsurface, you had better lay building paper first and use some very thin cement or shellac to seal the building paper to the floor separately from the linoleum. "All-white" operating rooms are no longer the universal rule, and we think that this is well, because the white operating rooms, with white sheets, white gowns, white floors, white walls, white furniture, are very hard on the surgeons' eyes and we would very much prefer a subdued color or tint in the floor, a dull gray up to 6 or 8 feet, and a darker gray above. A good many hospitals are laying white tile floors with walls of a light, dead-faced green and with a lighter green above, and a cream ceiling.

Unless you object to the color, the 12-inch, mill-molded, six-sided slabs of terrazzo, with cove base of the same, are very good for an operating room floor. These floors do not show the dirt, and some administrators do not like them for that reason, but we are becoming accustomed, these later years, to keeping our hospitals clean whether the dirt shows or not.

Well Mothers and Sick Children

To the Editor of THE MODERN HOSPITAL:

Can you tell us what hospitals are doing in regard to permitting the mothers of sick children to stay with the little ones at the hospital if they are willing to pay the price of private rooms or any other expense just to be with their sick ones? Do hospitals allow the mothers the privilege of staying with them? I do not believe in tearing parents and children apart during a serious illness, but my method is severely criticised by some people, and, for that reason, I would be glad for any information obtainable.

NORTH DAKOTA.

You are entirely right and your critics are wrong; it is heartless and unnecessary to keep mothers away from their sick children, more especially if the illness is serious and dangerous. Most hospitals are unprepared to care for this problem in the way that it should be met; that is, they do not have ample accommodations to take care of well mothers of sick children, but most hospitals are under humane management, in a final analysis, and their superintendents are finding ways to meet the necessities of each individual case. If there is an unoccupied private room and the mother is able to pay for it, as she would pay for a room in a hotel, it is, we think, the pretty general custom to let her have the room; and if she is unable to pay for accommodation, and even though the patient be a charity case, it is pretty generally the custom, and it ought to be uniformly the custom, to allow mothers to stay with sick children when those children are in serious condition. The occasion for letting mothers stay will not be quite so frequent as one would imagine, because it is only when the children are in serious and dangerous condition that it is necessary or desirable for mothers to be with them. Mothers come to appreciate this and will generally cooperate with the hospital in the carrying out of any rule along these lines; that is, they will be perfectly content to go home after the child is out of danger or even when there is no immediate danger. A good many hospitals, when a seriously sick child is in the open ward, find a cot or bed somewhere, somehow, in which the mother can sleep, so that she can be called when needed, or so that she can run in occasionally and see the little sufferer.

The thing for you to do is to stand by your guns and read the Golden Rule to anyone who criticises your attitude, "Do unto others as you would have others do unto you." This is the first principle underlying the creation and administration of hospitals; it is a good enough rule for you to be guided by, and it seems to us it is a good enough rule for you to read to anybody who criticises you.

The Annual Report

To the Editor of THE MODERN HOSPITAL:

As a subscriber and an appreciative reader of THE MODERN HOSPITAL, I would like to have some advice from your editorial staff either through the columns of the journal or by letter.

In a few weeks we will be called on to make our annual report of the work done in our hospital, and we are trying to make our report in such a form that it may be correlated with reports of other hospitals. My observations lead me to conclude that there is much yet to be done in standardizing hospital reports. Some hospitals report the number of patients admitted as the basis of comparison, other hospitals publish an index of diseases and operations, and, adding this total, state the number of cases treated. Manifestly this latter plan is a much larger number, but the public do not note the difference between patients admitted and cases treated.

For instance, a patient enters Hospital A, has a panhysterectomy and herniorrhaphy done, and is discharged, listed as one patient admitted. Same patient enters Hospital B and at the end of the year is indexed first as carcinoma of the uterus and in another place as ventral hernia, and when the totals are added she is counted as two cases. The reason I know this is so, is that the index never has a column, for instance, for hypertrophied tonsils-adenoids-phimosis, but these are listed under their separate columns, although we know many children are brought in with this complex. Carried to its last degree, one patient may figure as eight or nine cases, including the postoperative complications which sometimes occur, and also may swell the list of operations quite considerably.

The question is whether this is the proper way to make such a report or whether all hospitals should make comparisons on the basis of patients admitted. Of course, I understand that when it comes to the financial part of the report, this should be made on the basis of patient days and not on patients admitted.

I would be pleased to receive some assistance in this problem. INDIANA.

We assume that you have a file of THE MODERN HOSPITAL, and if you will look in the editorials of October, 1916, p. 309, the editorial entitled "A Logical Annual Report," you will find something on that subject that will interest you.

We are very far from having a standardized form of annual report. What you say about one patient being scheduled in three or four places is all too true, but we do not think that that patient would be usually scheduled in more than one place in the financial statement of any reputable hospital. That is not the usual way that most hospitals make the best showing for their institutions; they do that in the per capita cost. For instance, one hospital has a per capita cost of $2 and gives a splendid service to its patients, including an adequate pathological laboratory, an excellent x-ray service, each under the direction of a competent, high-salaried officer, and they have a scientific dietary that is actually used for the benefit of patients being treated for metabolic troubles. The other hospital shows a per capita cost of $1.50, but gives to its patients nothing except a bed and indifferent nursing service—no laboratory, no x-ray, no special diets and an all-round inferior service, and yet the board of trustees of that $1.50 hospital will boast of the low per capita cost and the trustees of the $2 hospital are likely to howl their heads off and blame their superintendent for not managing his hospital so that his per capita cost also can be $1.50.

When we come to standardize annual reports there must be a statement as to just exactly what the per capita cost includes; eventually, of course, hospitals are going to be so standardized that they will be compelled to give a decent scientific service and the facts as to that service will not need to be specifically stated in the annual report.

Another way that hospitals have of "treating" their annual reports is to put all repair and renewal bills under a building fund account so that they will not be charged in the maintenance account and will not be included against the per capita cost; this is just as wrong, of course, as the other.

Personally, we doubt very much whether the regular annual report is any place to publish the number of operations and the classification of diseases treated. The annual report is for a specific purpose, viz., to set out for the benefit of the board of trustees and supporters of the hospital, and the lay public, the operations of the hospital during the past year, and these people are not interested and will not read about the number of operations and the list of the various diseases treated. We regard it as a waste of space to publish such lists; where the hospital is large enough and there is a fund for the purpose, and the institution is making a pretense in regard to its scientific services, the medical report should be published as a separate document, to be circulated among members of the staff and in the profession generally.

We think the annual report should give salient financial facts, the number of admissions to the hospital, the number of days' treatment, the average length of stay of patients, the per capita cost, when that can be honestly arrived at, the number of deaths, etc. It seems to us this is enough of vital statistics. Then there should be a crisp, epitomized financial statement, and it will always be interesting if this statement can be analyzed under items, both as to income and expenditures. Lay readers will be interested, for instance, in the expenditures for food supplies, and, if these can be classified, it will be an interesting presentation; for instance, one classification of meats, including fish and poultry; another classification could be fresh vegetables, and, still another, canned vegetables; then other classes would show fresh fruits and canned fruits. One classification would cover all the drugs, another would cover surgical instruments and supplies and so on down the whole list of current expenditures. These things are of interest to those for whom the annual report is actually made.

We think the great body of the annual report should be addressed to the more sentimental things concerned in the hospital's annual activities, and the more sentiment that can be put into that part of the report the more valuable will it be from the standpoint of returns—because, in a final analysis, one of the strongest reasons for a report is to show prospective donors to the hospital that the institution is doing good work in the community. If individual incidents can be well written into the report, giving a "human" touch to them, it will be a mighty good thing.

It might be a good thing for you to write to Dr. Frederic Brush, of the Burke Foundation, White Plains, N. Y., and ask him to send you a copy of their last annual report. It comes nearer to our ideal of an annual report than any that we have seen.

The East Tennessee Tuberculosis Sanatorium Association, of Knoxville, plans to establish a sanatorium near Knoxville in the near future. The initial plant will consist of three buildings for patients, an administration building, and a central heating, lighting, and power plant. Accommodations for about 40 patients will be provided. The association owns 120 acres of land near Knoxville, purchased some time ago as a site for the sanatorium.

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WILLIAM H. WALSH, M. D., Secretary.

Official Bulletin for January

In the December issue a special request was made of every reader of THE MODERN HOSPITAL to send us a copy of annual reports of hospitals. In response the secretary reports the receipt of six hospital reports. We do not believe this lack of response is due to indifference, and the hope is expressed that, on reading this reminder, every member of the association, and everyone interested in its work, will communicate with the secretary regarding this matter.

COMMERCIAL EXHIBIT

Unusual interest is being shown by supply houses and others in our plans for the commercial exhibit to be held in Cleveland, and at this early date we can offer assurances of a most comprehensive display. Members can aid us by directing the attention of their supply houses to the forthcoming convention.

SOUTHERN HOSPITAL SECTION

The southern hospital people are displaying commendable interest in the new provision of our constitution providing for the formation of sections, and there is every reason to believe that a section from this part of the country will be one of the first to take advantage of the opportunity. At an early date the trustees will discuss the plans for section formation, and will probably outline a scheme of organization that may serve as a model for all sectional bodies.

BUREAU OF REGISTRATION

The work of this bureau is growing, and a list of highly recommended, experienced hospital executives, housekeepers, and instructors is now available for every institution seeking such persons. It must be remembered, in applying for the service of this bureau, that, for the present at least, only members can be listed, although institutions will be supplied with our bulletins regardless of whether their executives have become members.

PAPERS FOR NEXT CONVENTION

The president is already deeply engrossed in the plans for the next program, and in this connection invites correspondence from those who are desirous of presenting papers at Cleveland. Efforts will be made to present a well-balanced program, and special emphasis will be placed on the quality of the material rather than the quantity. In this respect the Philadelphia program was perhaps the most remarkable ever presented, and, with such a precedent as a guide, it is hoped that a program of equal interest can be assembled.

MEMBERSHIP IN THE AMERICAN HOSPITAL ASSOCIATION—AN APPEAL TO REASON

No hospital executive can get along as successfully and as proficiently without wide communication with others handling the same problems as he can if close contact is maintained with them. No man or woman can become so well informed or sufficiently versed in all the complex problems that enter into the management of hospitals as to be an "authority unto himself." To lose interest in the recital of true experiences that are told in our presence by those who bore a part in what they recount is to concede that we are out of the running and are content with the society of our own ingrowing personality.

Everyone we meet is a potential teacher, and the true scholar in the fine art of living is a student to the end. The mother learns from the infant who cannot speak; the instructor learns from his pupils; fashion and style are cycles of imitation. We copy all the time from one another, and adapt to our own uses what we see and hear. Those of us, therefore, who mingle most with our fellowmen, who are ever ready to profit by the experience of others, are the less likely to pose as authorities on the strength of a mere smattering of knowledge. Too often do we encounter the genuinely informed who brings us to grief in our conceit by puncturing our pretense with a few pointed queries.

The American Hospital Association is proud of the fact that many of the really big intellects in the hospital world are already members; indeed, their supremacy in the field presupposes that they have not neglected such a valuable means of acquiring new knowledge. It is, therefore, to those of lesser experience, to the younger generation of hospital people, that we would address this communication, in the hope that they may be made to feel with us an overwhelming humility in the sense of all that lies beyond the boundary of our own minute fund of knowledge.

The American Hospital Association may, with sincerity, display a dignified pride in its accomplishments, since a comparison of its history and that of American hospital progress fully supports the claim that almost every great movement for the improvement of hospital work during the past seventeen years was either initiated or strongly supported by this association. Often the burden has been carried upon the shoulders of a few seasoned veterans who gave freely of their time and intellect, that others might profit. The time has come, however, when others must put a shoulder to the wheel, when those who have so handsomely profited by the industry of older members should assume certain responsibilities with respect to the burden of future years of progress.

AMERICAN MEDICAL ASSOCIATION

Local Committees for Next Meeting Appointed—Those of Interest to Hospital Officers

The New York Committee on Arrangements of the American Medical Association has just completed its preliminary organization. Among the local committees of interest to hospital people are the following: Hospital Superintendents and Executives—Chairman, Robert J. Wilson; Hospital Social Service—Chairman, James K. Paulding; District Nursing Systems—Chairman, Lillian K. Wald; Trained Nurses and Training Schools—Chairman, Adelaide Nutting; Planning and Financing of Municipal and Nonmunicipal Hospitals—Chairman, S. S. Goldwater.

FOREIGN CORRESPONDENCE

War Hospital Notes

DISTRIBUTION OF HOSPITAL ACCOMMODATION ON SERVICE

The regulations as to amount of provision of hospital accommodation of various kinds on active service have been very carefully drawn up, and embody the results of experience of many years and in widely different circumstances. They are probably as comprehensive and practical as could be expected, but a wise administration will allow modifications as necessity arises. The medical authorities have accordingly kept down the actual accommodation provided as low as seemed to be justifiable under the conditions actually prevailing in each case. One important factor in the present campaign (as far as the British forces are concerned) has been the relative shortness of the lines of communication; owing to this, there has not been the usual necessity for establishing a number of "stationary hospitals" between the base and the front, and this type of hospital has been located near the "general hospitals" at the bases, their accommodation being expanded and run on very similar lines to the general hospital. Thus, x-ray departments and pathological laboratories have been provided for some stationary hospitals, and in some cases such a hospital has developed a special type of work—e. g., in one case venereal patients have been exclusively dealt with, another has developed into an officers' hospital and nursing home, and a third has become an isolation hospital for infectious diseases. This evolutionary change is the result of adaptation to special requirements, and shows a wholesome neglect of red tape that in former times could have been perhaps seldom met with. In some cases even casualty clearing stations or hospitals have been provided with bedsteads and staffed with nurses, though patients are not supposed to remain in a hospital of this class any longer than is absolutely necessary; that is, only until transport is available to pass on the patients down the line of communication. Officially, they have no equipment beyond that contained in the field panniers and boxes, and mattress cases that can be filled with straw.

BRITISH HOSPITAL ADMINISTRATION IN FRANCE

There appears to have been some criticism some few months back on the administration of British hospitals in France and Flanders to the effect that they were overstaffed. Mr. J. Lynn Thomas, C. B., F. R. C. S., of Cardiff, having visited many of these hospitals, gives his emphatic testimony to their admirable organization for the treatment of wounded and sick soldiers, and for the prevention of disease; in particular he mentions and eulogizes the special departments for dealing with ophthalmic, dental, skin, and foot troubles. Colonel Gordon Craig, of the Australian medical service, wrote in the early part of the year, pointing out that there must, from time to time, occur periods of comparative inaction, alternating with periods of extreme pressure. It is necessary that the numbers of a military medical organization should be calculated on a certain basis, so that a unit may be competent to deal with emergencies as they arise—e. g., many hundreds of wounded requiring tc be attended to with the least possible delay. There will be corresponding intervals of relative inaction, or lessened strain, during which some of the staff may not have much work to do; but the organization must be capable of dealing with emergencies, and possess sufficient elasticity to expand immediately, and deal adequately with each emergency as it arises. During the intervening slack periods (which must necessarily be of uncertain duration) there may be a larger proportion of medical officers present in a unit than is at the moment necessary. This, however, cannot be avoided if the medical units are to be maintained in a state of readiness for action.

OPEN-AIR WARDS

The use of open-air wards for patients has greatly increased of late years in this country, and in the opinion of some observers has perhaps been a little overdone, considering the vagaries of our climate. In an auxiliary building connected with the Second Western General Hospital at Alderley Edge, near Manchester, a well-considered attempt has been made to meet objections. This structure accommodates 16 patients, facing south by east and north by west. On each front is an arrangement of weatherproof shutters, consisting of a wooden framework with panels of asbestos, fitted with windows. These shutters can be put into position quite easily by the nurse, as they travel on an overhead monorail. They interlock and are weather-tight, but a space of a few inches for ventilation is provided under the eaves. Such a protection from weather appears to be necessary. It is stated that the blankets in winter time had been covered with hoarfrost, which cannot have been agreeable, and probably would not be beneficial, to the patient. A coverlet of double layers of unbleached calico, with newspaper between, is stated to afford protection.

CARE OF CRIPPLED SOLDIERS

Men who have lost their limbs, or are otherwise crippled, are at present treated at Queen Mary's Auxiliary Hospital, Roehampton (near Richmond). A similar institution is being established for Scottish soldiers and sailors near Glasgow, and there is no doubt that considerable further provision will have to be made for the proper treatment and after-care of this very numerous class of patients. The Star and Garter building at Richmond (previously referred to in these notes) has been demolished, and a new hospital, or convalescent home, is in course of erection on the site. The circumstances attending the foundation of this institution are worth recording. The professional organization known as the Institute of Auctioneers and Estate Agents purchased the building for £21,500. The amount raised by subscriptions was about double this sum, and the balance was handed over for the endowment of beds. The building was presented to the queen. Her Majesty dedicated it to the use of men permanently disabled by war service. These patients require most constant and careful surgical treatment and nursing, such as they could not possibly obtain in their own homes, yet they are not cases that could be treated in an ordinary hospital on account of the lengthened sojourn that would be required. Two wards were opened in March. The surroundings of the patients are made as homelike and as little irksome or restrictive as possible. Arrangements for the provision of a similar institution for Scottish soldiers

have been made in Glasgow, also in Edinburgh and in other places in Scotland.

Mr. Arthur Pearson has organized an excellent institution for training blinded soldiers in various occupations, such as carpentry, mat and basket making, poultry farming, etc., at St. Dunstan's in Regent's Park, London. This is doing very good work, which is capable of much extension. Every effort is made to alleviate the lot of these poor fellows, deprived of their sight while still young and active. Our illustration (Fig. 1) shows that they are capable of enjoying themselves in the festive dance. They are taught to find their way about by education of the

Fig. 1. Interior of one of the rooms in St. Dunstan's Hospital for Blinded Soldiers, Regent's Park, London. Blind soldiers engaged in dancing. In the upper left-hand corner is shown the manner of laying a carpet along the corridors to guide the inmates.

sense of touch. The smaller illustration shows how, by laying carpet along the center of the corridors, the inmates are enabled to find their way about the building.

INCREASE IN THE COST OF DRUGS

Among the effects of war on hospital management not the least important has been the very great increase in the cost of certain valuable drugs. This has been due to several causes, but perhaps mainly to the fact that, for many years, the United Kingdom has been mainly dependent on Germany for her supply of some of the most widely used synthetic preparations. This is one of the many instances in which, by want of energy and forethought, and by a craving for cheapness, we have allowed ourselves to be distanced by our more active rivals, who have now become our bitter opponents. It must be regretfully acknowledged that the blame is entirely our own—there can be no condemnation of German skill and industry. To take an instance, potassium bromide is a drug universally used in hospitals for the treatment of nerve affections. Immediately before the war the cost was about 1 shilling and 6 pence per pound, the supply being largely of German origin. The effect of hostilities was to advance the price to 25 shillings per pound, though we understand that in Germany it was procurable at 8 pence per pound. The national hospital for the paralyzed and epileptic in London, generally known as the Queen Square Hospital, uses about a ton and a half of bromide annually. The potassium salt has been the one most generally used in this country, but it is the most costly, the potash being mostly derived from the mineral deposits of Germany. Before the war the cost of the annual requirement of potassium bromide amounted, it is stated, to £252; the present, or recent, cost of the same quantity would be £4,200. Judicious purchases and the substitution of the ammonium and sodium salts have kept down the increase in expenditure, but it has nevertheless been enormous, and no considerable reduction is likely to be effected for some time to come.

Where institutions, such as workhouse infirmaries, have been taken over by the War Department, not only as regards the building, but as a "going concern," for the treatment of sick and wounded soldiers, it has sometimes happened that a difficulty has arisen with regard to existing contracts. The class of cases treated has materially differed, of course, from those usually received, and the medicinal requirements have also been changed. Much larger quantities have been needed of what may have become much more expensive drugs—e. g., phenacetin, formerly 7 shillings and 6 pence per pound, rose to 76 shillings per pound; at one large hospital the increase was from 3 shillings to 58 shillings per pound, or 1,900 percent. Phenazone (antipyrin) went up from 8 pence an ounce to about twenty-five times that sum. It is obvious that where the changed conditions have led to an entirely different class of cases being treated—that is, acute cases of severe injury instead of chronic ailments, chiefly of the old and infirm—the conditions of contract cannot equitably be enforced; indeed, whatever price were paid, the supply of certain drugs that of late years have been imported chiefly from Germany has necessarily fallen short in some cases, though now the chemical works in Great Britain are meeting the deficiency. In the particular instance mentioned, where an infirmary was taken over by the military authorities, the Guardians of the Poor (who made the contract) had, of course, no contract for the medical treatment of military cases. The drug contractors suggested that drugs, such as those mentioned, of which the supply is very limited, should be used very sparingly or discontinued. Whether the military medical officers who had charge of the patients were able to fall in with this suggestion, we do not know. When actually in the field, one expects to have only a very limited armamentarium at one's disposal, either of drugs, dressings, or instruments, but in London one would look for these essentials for treatment in unrestricted quantity. In this instance the Guardians decided not to hold the drug contractors to their original figure, but to pay the market prices; they realized that they were bound to supply the drugs to the military authorities, but they felt that they could not equitably allow the firm of contractors to suffer. Probably the War Department would make up for the Guardians any deficiency. One of the results of this war will, no doubt, be a wholesome revulsion from the vicious condition of dependence on the rest of the world for so many necessary articles of consumption that Great Britain might have grown or manufactured for herself, but the cultivation or production of which she has for many years neglected, owing to the craze for cheapness. It should be mentioned that the cost of practically all articles of food has increased by about 45 or 50 percent, with the exception of milk, which rose not quite 30 percent.

A HOSPITAL FOR TYPHOID "CARRIERS"

A hospital of quite a special kind has been established at Addington Park, near Croydon, by the Red Cross Society. Originally started for the treatment of acute infective cases, such as enteric fever and dysentery, it has developed into a sort of "clearing house" for carrier cases; consequently most of the patients are, from a clinical point of view, convalescents. They are, however, retained in hospital until bacteriological examination has shown that they can be discharged without being a danger to the community as "carriers." Dr. E. C. Hort, the honorary physician and director of the laboratory, has reported on the

work done, and an important point appears to have been established—namely, that antityphoid inoculation tends to reduce the proportion of carriers among those convalescing from the disease. The persistence of bacterial infection long after acute symptoms have ceased, and even when the patient appears to be in good health in every way, has long been recognized as a difficulty in the management of these cases, and the nonrecognition of this fact has undoubtedly in former years brought about the spread of the disease, especially in India. Ordinary hospital accommodation is not available for the care of such convalescents, nor do they need hospital treatment in the usual acceptation of the term; but for the protection of the community at large they require to be segregated, with the most minute and constant supervision over disposal of the excreta, such as is impossible of attainment in their own homes. The Addington Park Hospital has been expanded from time to time, and now accommodates 1,700 patients, most of whom, however, have themselves recovered from the disease, though they are not free from infectivity to others.

ARRANGEMENTS AT GUY'S HOSPITAL

The distribution of hospital accommodation in London is, like many other matters of administration in the metropolis, and indeed in the United Kingdom generally, not based on any logical plan or deliberate design, but has come about almost at haphazard—it has "growed," like Topsy. Many large hospitals are situated relatively near to each other in the central parts of the metropolis, while enormous areas of dense population are ill supplied with means of hospital treatment for what are called "the working classes," an expression taken to mean those who earn a weekly wage. It is from these classes that the majority of the inmates of hospitals are derived. It is true that within recent times St. Thomas' Hospital has been removed to Lambeth, and quite lately King's College Hospital to Brixton; but there is relatively a deficiency in the south, and perhaps more particularly in the southeast, of London. It was this consideration, we believe, that actuated the governors of Guy's Hospital in deciding not to accept the War Office offer of financial assistance in return for placing beds at the disposal of the military authorities; they felt that the hospital should remain available for the treatment of civilians for whom no accommodation could be found at other hospitals on account of their occupation by the military. But they devoted a large ward of 48 beds to the treatment of wounded officers, and gave up another ward of 20 beds for the care and management of minor surgical defects which, if untreated, would prevent a man becoming an efficient soldier, but which are capable of being remedied without difficulty—e. g., hernia, varicose veins, defective teeth, etc. This is extremely valuable work, not only for the immediate necessities of the war, but for the health and well-being of the people generally, many of whom, however, under ordinary circumstances neglect to have any treatment for these ailments.

[To be continued.]

The Robinson Hospital, a handsome three-story and basement building of brown chinchilla brick and Bedford stone, has recently been opened at Robinson, Ill., under the superintendency of Miss Katherina Steinman, a graduate of St. Vincent's Hospital, Indianapolis, Ind., class of 1915. The hospital was built by Drs. Carlyle, Price, Rafferty, and Lowe, of Robinson, who have opened a cooperative clinic, and besides the offices and accommodations for 18 patients, has modern operating, obstetric, x-ray, and laboratory equipment.

TWO NEW CLINICS FOR OCCUPATIONAL DISEASES

Night Clinic on Industrial Medicine and Surgery at Rush Medical College, Chicago—Department of Occupational Diseases Established at Union Hospital, New York

How many practicing physicians are there in this country who know enough about occupations of modern life to follow them to the ward in the hospital as the prime cause of disease and to differentiate them in taking a history and in making a diagnosis? The history sheets of most hospitals record the patient's occupation in such superficial and inadequate terms as "laborer," "clerk," "painter," etc., which give no real information in regard to the patient's actual vocational activities. And yet diseases due to occupations are among the most important ills from which we suffer. Deaths directly attributable to occupational diseases are rare, to be sure, but this is because death is generally the direct result of a secondary disease. If we are to fight disease by fighting causes, then must we not delve deeply into causes, and does not this mean that the modern medical man, in order to be thoroughly capable of leading in the education of the public in health matters, must familiarize himself with commercial and industrial conditions, at least far enough to enable him to evaluate their relationship to disease?

This question is beginning to be answered in the affirmative. We are gradually accumulating a literature on the subject of occupational diseases; we are adding to the small number of clinics for occupational diseases; we are beginning to teach the subject in our medical schools. A most important recent addition to the literature, "Diseases of Occupation and Vocational Hygiene," by Kober and Hanson, by the way, is reviewed on another page.

Union Hospital, New York, is one of the largest institutions to give attention to this important subject. It has established a department for the treatment of occupational diseases, with Dr. Frederick W. Loughran as physician in charge. Here an intensive inquiry will be made into personal, environmental, and occupational factors of the cases, and patients will be instructed in means of avoiding the dangers to their health.

A most important innovation is offered by Rush Medical College in the form of a comprehensive course on industrial medicine and surgery under Dr. Harry E. Mock. While several medical schools have offered courses on some one branch of industrial medicine, Rush is said to be the first school to offer so complete a course. The clinic is to be held at night, so that it may be available to employed persons. At this night clinic patients will be given first aid. If unable to work, they will be referred to the day dispensary. If they are able to remain at work, continued treatment will be given at the night clinic, together with instruction in hygiene and prevention of disease. If the work on which they are engaged is unsuitable to their physical condition, the Department of Industrial Medicine will try, through a social service worker, to secure work better adapted to their strength. The social service worker will also endeavor to enlist the interest of the employer in adapting conditions of work to the needs of the industrial worker. It is the intention also to cooperate with employers who wish advice on hygiene and sanitation, examination of employees, emergency treatment in case of accidents and sudden illness, etc. Such training as this will surely be invaluable to the physician of tomorrow.

Dr. Frederick Allen, of Oakland, Cal., is opening a private sanatorium near San Lorenzo, in the same state.

BOOK REVIEWS

Proceedings of the National Conference of Charities and Correction, at the Forty-third Annual Session, May 10-17, 1916. Permanent headquarters, 315 Plymouth Court, Chicago, Ill. Chicago, 1916. Pp. 713, cloth.

According to the preface to this volume, "in both discussions and business action those who attended the forty-third annual session of the conference seem to have been impressed with the usefulness of this body in showing how all of scientific social effort in America may be turned to the solution of all its main practical problems." The extent and variety of these problems are indicated to some extent by the table of contents. The papers presented are grouped under the following main headings: "Promotion of Social Programs," "Inebriety," "Unemployment," "Feeblemindedness and Insanity," "Public and Private Charities," "The Family and the Community," "Corrections," "Children," and "Health." The president of the conference, Dr. Francis H. Gavisk, in his address on "The Scope of the Conference," says: "The National Conference is unlike any other body that assembles. . . . The conference decides nothing and does not go on record as favoring either this policy or that, but that its influence has been potent is evidenced from the forward movement in charities and corrections since its organization. . . . At a single conference on the care of dependent children held in Washington in 1909 the result of the deliberations of the White House Conference was to standardize the methods of child care and indirectly to establish the Federal Children's Bureau. . . ."

The Control of Hunger in Health and Disease. By Anton Julius Carlson, professor of physiology in the University of Chicago. University of Chicago Press, Chicago, 1916. Pp. 319, cloth, $2 net.

This book is to be considered, in the author's words, "as the first rather than the final chapter on hunger control, and yet the most extensive work in this field to date." It contains a summary of the work done on the stomach, with special reference to hunger and appetite, carried out in the Hull Physiological Laboratory of the University of Chicago during the last four years. Three methods have been employed: (1) direct inspection of the stomach through a gastric fistula (Dr. Carlson has been so fortunate as to have in his service a "second Alexis St. Martin," a Mr. F. V., who has complete closure of the esophagus and a permanent gastric fistula of twenty years' standing); (2) the introduction into the stomach of a rubber balloon, and recording the variations in pressure on the distended balloon due to contractions in the stomach; (3) the introduction into the stomach of a balloon coated on the inside with bismuth paste, which permits graphic recording of the stomach movement synchronously with roentgenography or fluoroscopy, and, in man, recording the subjective sensations. Carlson's experiments were made on Mr. F. V., on normal human beings, and on experimental animals. The true hunger sensation, Carlson finds (he distinguishes between appetite and hunger), is due to contractions of the empty stomach, which are primarily initiated in the stomach itself and are thus independent of motor impulses from the brain or spinal cord. A few of Carlson's other conclusions are the following: The accessory hunger phenomena, excepting the exhaustion fatigue of prolonged starvation, are caused reflexly by the hunger tonus and the hunger contractions of the empty stomach. Since the empty stomach, when completely isolated from the central nervous system, exhibits typical hunger contractions, the primary role of the gastric nerves is that of modifying or regulating essentially automatic mechanisms in the stomach wall. Of especial practical importance are the conclusions (1) that the normal human stomach secretes pepsin far in excess of the actual needs of gastric digestion, and (2) that "bitters" have no favorable action on hunger contractions or on the secretion of the gastric juice. Carlson admits a certain influence on appetite through the stimulation, by condiments and flavors, of nerve-endings in the mouth and in the normal gastric mucosa. "Apart from this," he remarks, "the physiologic way of augmenting hunger and appetite is moderation in the food intake or increasing the utilization of the food in the body by outdoor living, fresh air, cold baths, and physical work. If these measures do not improve appetite and hunger, the chances are that the digestive tract is not in condition to take care of the amount of food demanded by stronger hunger and appetite sensations."

Manual for Institution Libraries. Compiled by Carrie E. Scott, assisted by the A. L. A. Committee on Library Work in Hospitals and in Charitable and Correctional Institutions. A. L. A. Publishing Board, 78 East Washington street, Chicago. 25 cents.

This is a little hand-book of thirty-eight pages, which endeavors to answer in a simple and practical manner the five questions which confront the institution librarian who has had no library training: (1) what books shall I select? (2) how shall I arrange them? (3) how shall I keep track of them? (4) how shall I get them to the readers? (5) how shall I keep them in good condition? Appended is a list of supplies needed in the library, with addresses of reliable firms. Altogether, it is a very complete and satisfactory little hand-book. To the untrained hospital librarian (and there are few others) such a hand-book is indispensable. Happily, the hospitals are waking up to the importance of a good library as a therapeutic agent, and are learning that, to be efficient, this library must be organized; and that without some system the best library is simply a mass of books, while with it the library becomes an important department of the hospital.

The Practitioner's Medical Dictionary. By George M. Gould, A. M., M. D., author of "An Illustrated Dictionary of Medicine, Biology, and Allied Sciences." Third edition, revised and enlarged by R. J. E. Scott, M. A., B. C. L., M. D., Fellow of the New York Academy of Medicine. Pp. 962, with many tables. Cloth, $2.75. P. Blakiston's Son & Co., Philadelphia, 1916.

The object in view in this new edition, the publishers state, was to provide a comprehensive low-priced dictionary in compact, convenient form. It is said to contain nearly 71,000 terms, or, by actual count, 70,900. The authors say that the definitions "are based upon the standard literature and authoritative text-books of the day, and are not copied from the older vocabularies." The general tendency of modern usage is followed in the elimination of diphthongs in "c(a)esarean," "c(o)eliac," "h(a)emal,"

etc.; also in the capitalization, in the title-words, of proper names and their derivatives only. Another feature which will commend itself to users of this dictionary is the placing of eponymic terms under the alphabetical place of the eponym and not under that of the variable generic term. For instance, the Wassermann test will be found under "Wassermann" and not under "test" or "reaction;" Marie's symptom is found under "Marie" and not under "symptom" or "sign." The book, on the whole, appears to be a very convenient and satisfactory work of reference.

Hospital Laboratory Methods for Students, Technicians, and Clinicians. By Frank A. McJunkin, A. M., M. D., Professor of pathology, Marquette University School of Medicine. Pp. 139, with 94 illustrations. Cloth, $1.25 net. P. Blakiston's Son & Co., Philadelphia, 1916.

This book is intended for the use of hospital laboratory workers and technicians of other small laboratories. The tests given are those required on specimens commonly sent to such laboratories, namely, clinical specimens, including urine, gastric contents, feces, sputum and blood, and bacteriologic, surgical, and autopsy specimens. No attempt has been made to enumerate all the methods in use for any given purpose; instead, the author has chosen in each case the simplest procedure by which the object of the analysis can be attained with the greatest certainty. Only well-tested methods have been included.

American Public Health Protection. By Henry Bixby Hemenway, A. M., M. D., author of "The Legal Principles of Public Health Administration." Pp. 283, cloth, $1.25 net. The Bobbs-Merrill Company, Indianapolis, 1916.

This book, dedicated "to the women of America," is a tract for the times, written, the author says, partly in response to appeals from health officers and university professors in several states. Its text is: "Health administration must be divorced from politics and recognized as a special profession." Amateur sanitarians, Dr. Hemenway says, should not themselves attempt to determine administrative policies or legislative provisions. In the place of trying to decide how dairies should be managed they should make sure that a competent health officer is employed, and then follow his leading.

The book is well adapted to its purpose; it is one which the intelligent layman may read with pleasure and interest as well as profit. It is refreshing to note that Dr. Hemenway has not felt it necessary to depersonalize and devitalize his most interesting stories by omitting all names and all human interest. Too many medical writers for the laity fail to realize that lacking these "vitamines," the pabulum that they furnish is likely to give the consumer the yawning disease.

If his titles were as happy as his text is interesting, it would seem that Dr. Hemenway's book might become really popular. Unfortunately, however, the very man or woman who ought to be reached by such a book is likely, we fear, to shy away from a volume on "American Public Health Protection," especially when the chapter headings read "National Health Agencies," "Changes Due to Advancement in Science," "Organization of Health Departments," etc.

Diseases of Occupation and Vocational Hygiene. Edited by George M. Kober, M. D., LL. D., and William C. Hanson, M. D. Pp. 918, with illustrations and reference tables. Cloth, $8 net. P. Blackiston's Son & Co., Philadelphia, 1916.

In the introduction to his great work on "Dangerous Trades," Dr. (now Sir Thomas) Oliver wrote: "This is the first occasion on which, on the special lines indicated in this book, any adequate attempt has been made in this or any other country to deal with the conduct of trade and other occupations in respect to the dangers of life and health to which the workers are liable."

These words were written scarcely twenty years ago. Much water has flowed under the bridge since then, yet Dr. Kober in his introduction to the present volume tells us that so late as 1911 he declined an invitation from his publishers to prepare or edit such a book "because the scarcity of statistical data in reference to disease and accident hazards in the various occupations of this country had compelled him in his former writings to get most of his facts from Europe and the state of Massachusetts." Since then increasing attention has been paid in this country to occupational diseases, and the accumulation of material has resulted in such notable additions to the literature as Dr. W. Gilman Thompson's "Occupational Diseases" (1914), Dr. George M. Price's "The Modern Factory" (1914), and, more recently, the volume now under discussion.

Kober and Hanson's "Diseases of Occupation and Vocational Hygiene," like Sir Thomas Oliver's "Dangerous Trades," is a compilation of articles contributed by various authors. Under such a plan a work always suffers somewhat in respect to logical and formal consistency, but, if the collaborators be wisely chosen, it gains on the side of authoritativeness. The twenty-nine contributors to this volume (thirty-one, including the two editors) comprise such investigators as Dr. Alice Hamilton, well known for her excellent work on industrial lead-poisoning, etc.; Dr. John B. Andrews, whose intensive study of phosphorus poisoning in the match industry of the United States, finally led to prohibitive taxation on the use of the poisonous white phosphorus in this country; Major Bailey K. Ashford, president of the Board for the Study of Tropical Diseases as They Exist in Porto Rico; Dr. Emery R. Hayhurst, director of the Division of Occupational Diseases, State Board of Health of Ohio; and the editors themselves, whose previous work needs no comment.

The three main divisions of the work comprise: (1) "Specific and Systemic Diseases of Occupation, Fatigue and Neuroses, etc.;" (2) "Etiology and Prophylaxis of Occupational Diseases—Vocational Hygiene;" and (3) "The Relation of Clinics, Statistics, Governmental Study and Legislation to Occupational Diseases." Altogether it affords a rich mine of information to the student of occupational diseases. It is to be regretted, by the way, that so important a work has not been made more accessible to ready reference. The index, which might have been quite sufficient for a less monumental or more systematically arranged book, is inadequate, considering the amount, the value and the irregular treatment of the information contained therein.

American students of this subject may well congratulate themselves that a satisfactory literature on occupational diseases is being produced on this side of the Atlantic. The problem now is to interest American physicians in the subject; but that is another story, and those who wish may read on another page of this issue an account of the recent opening of two new clinics for occupational diseases, which, it is hoped, may help those already established in diffusing a knowledge of occupational diseases and hygiene among the American medical profession.

Miss Martha A. Egelston, formerly connected with Kansas City hospitals, has accepted an appointment as superintendent of the City Hospital at Dallas, Texas.

NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.
Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast avenue, Oak Park, Illinois.

The Year's Progress in the Construction of Sterilizing Apparatus by American Manufacturers

Manufacturers of sterilizing apparatus in the United States have reached such a point that the claim may be justly made that American sterilizers excel those produced in Europe or any other part of the world. Anyone who has made an inspection of sterilizing rooms of European hospitals and compared the apparatus found there with those installed in our own hospitals will readily verify this statement. We believe that the apparatus manufactured in the United States excels especially in point of simplicity and convenience of operation.

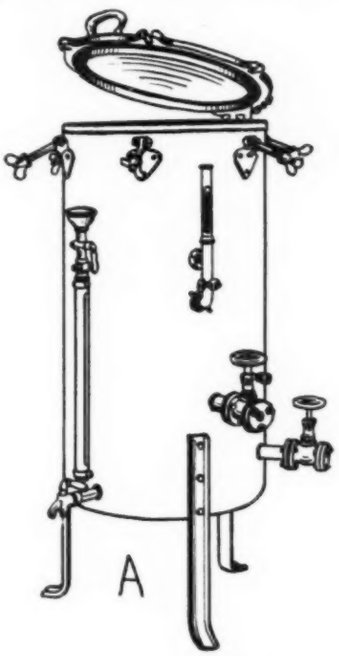

Fig. 1. European type of dressing sterilizer, known as "autoclave."

The type of dressing sterilizer most commonly met with in European hospitals is the upright or vertical type, which is designated under the term "autoclave" (Fig. 1). This vertical type of apparatus does not compare at all favorably with the horizontal type from the standpoint either of accessibility or of cleanliness. The vertical type is usually set on low legs on the floor, which makes it rather difficult to keep the apparatus clean. The type of apparatus employed in the United States is set horizontally on a stand, which brings the level of the door opening to the proper height to make it convenient for loading and unloading. This advantage is easily apparent on comparing illustration Fig. 2 with Fig. 1.

In the matter of locking the door, the type employed in our hospitals is also vastly superior. With the European type it is necessary to fasten and unfasten a number of wing hinged bolts (from 6 to 12) each time the sterilizer is opened or closed, while in the American type the door is locked and unlocked by the simple operation of turning a wheel, which throws radial fingers. This construction also prevents accidents, which are liable to happen with the European apparatus, owing to the vertically suspended door slamming shut. In the sterilizers built in this country it is impossible for the door to slam shut, as it swings in a horizontal plane. Sterilizers as made today are so safeguarded that it is almost impossible for an accident to occur unless the operator tampers with the apparatus or fails to follow the directions of the manufacturer.

Provisions have been made for extra safety by employing two safety valves. Special attachments prevent im-

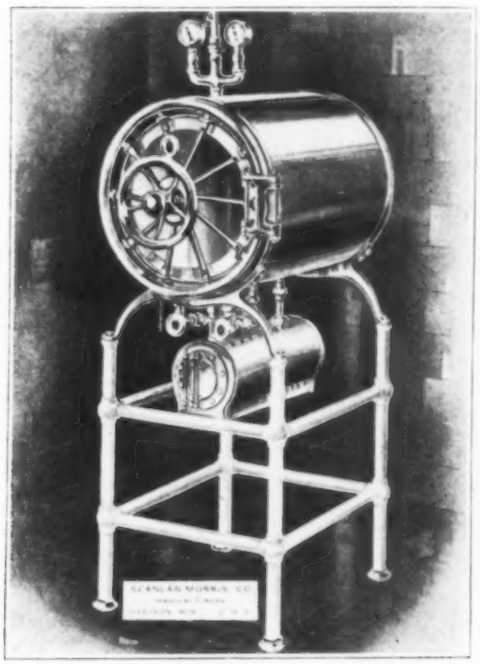

Fig. 2. Representative type of dressing sterilizer made by American manufacturers.

perfect locking of the doors. Other devices prevent opening the doors while there is pressure in the sterilizer.

Most users of this type of apparatus fail to realize what has been accomplished in the direction of safety, but this fact will be made apparent when one considers that all other forms of high-pressure apparatus, outside of sterilizers used in hospitals, are employed under the supervision of skilled engineers, while sterilizers, which are classed as high-pressure apparatus, are almost universally operated by men or women possessing practically no mechanical knowledge.

The most important improvement in dressing sterilizers, however, has been the development of the front-control (see Fig. 3). The front-control does away with the necessity of having to work at both ends of the sterilizer. It prevents the possibility of the operator's hands being burned in manipulating valves situated at the back of the sterilizer and in the limited space between the sterilizer and the wall. It also does away with the necessity of

keeping a clear space alongside the dressing sterilizer (see Fig. 4).

The development of a device for rapidly drying the sterilized articles has considerably shortened the time in which to turn out the dressings in a perfectly dry condition. Means have also been invented to prevent the escape of steam from the safety valves into the sterilizing room. Formerly jets of steam escaped from the safety valve whenever this was released by over-pressure. Now an attachment known as the Hendrickson device carries off the steam released by the safety valve into a vent pipe and prevents the annoyance due to condensed steam accumulating on walls, ceiling, as well as on instruments and appliances in the operating room.

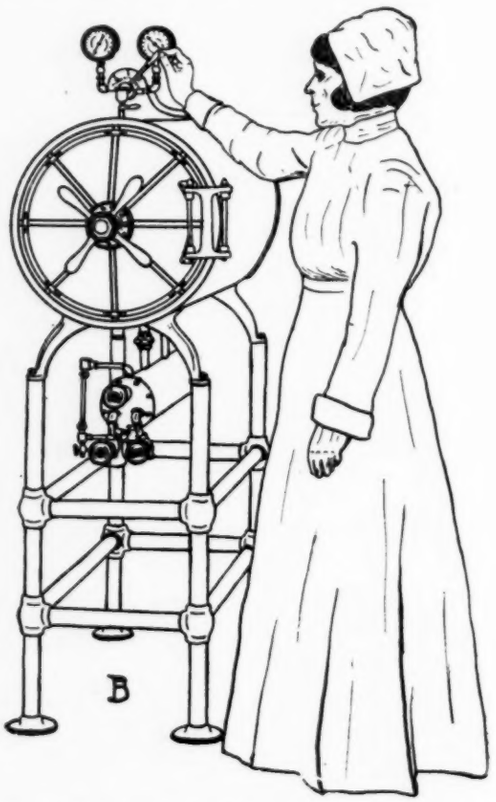

Fig. 3. Illustration showing advantage of front-control.

In some of the newer hospitals that are being built sterilizers are being mounted on wall brackets, as shown in Fig. 5. As a result, the floor space is kept free from encumbrances and the maintenance of cleanliness is made easier.

In the manufacture of water sterilizers, the employment of seamless shells with smooth domes upwards has also aided cleanliness. The employment of clean-cut valves has simplified the process of cleaning out the tanks. Improvements in the construction of the filter by using hinged bolts for holding down the dome, and the addition of a set-screw for raising the dome has greatly simplified the removal and cleaning of the filter stone.

In instrument and utensil sterilizers improvements have been made whereby the cover and tray are simultaneously raised by means of various pedal arrangements. In the newest forms the cover is thrown back on a hinge out of the way of the operator, so that there is no drop of condensed steam on the arms of the operator, as was the case where the covers were raised horizontally. Improvements in the construction of oil pumps also greatly lessen the labor of the nurse in raising the trays of utensil sterilizers.

Probably the most important development, however, has been in the designing of apparatus for automatically emptying and sterilizing bed-pans. Heretofore the emptying and cleaning of bed-pans in open sinks (see Fig. 6) has been one of the most disagreeable features connected with hospital work, and, although several manufacturers have

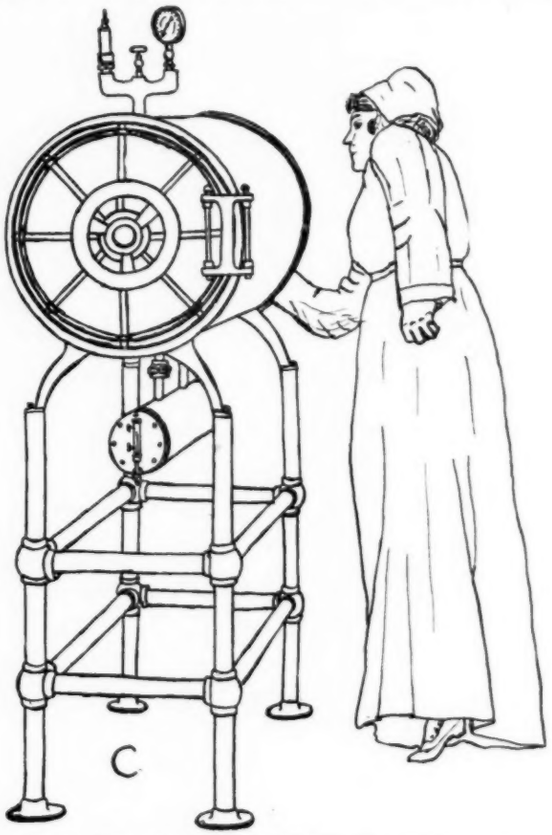

Fig. 4. Illustration showing disadvantage of rear-control.

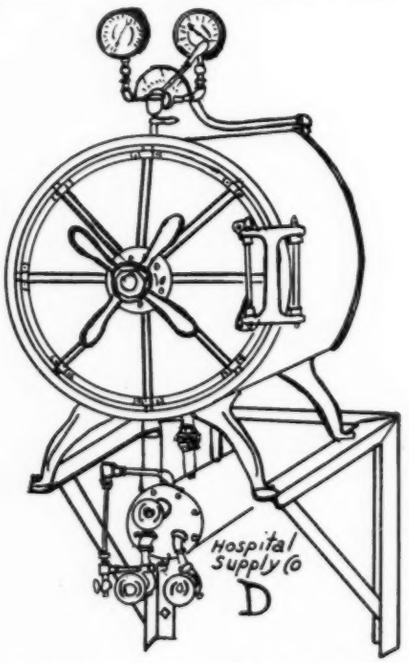

Fig. 5. Showing sterilizer mounted on wall brackets.

in the past devoted themselves to the task of designing bed-pan sterilizers, they seem to have overlooked the greater demand for an apparatus for emptying and washing the pans. This requirement has been well met by the Hospital Supply Company, of New York, with their new "Climax" apparatus (Fig. 7), perfected and placed on the market during the last year. In this apparatus an entirely new design was employed in the form of a cylindrical hopper with a tight-fitting cover instead of a square hopper

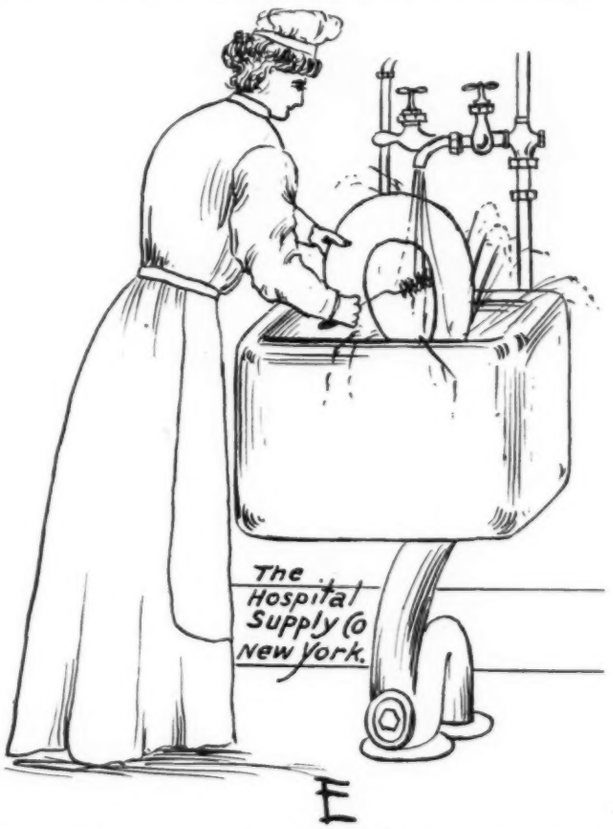

Fig. 6. Showing former method of emptying and cleaning bed-pans in open sinks.

with a loose-fitting cover. The use of internal perforated piping, which was experimented with by several manufacturers, has been done away with on account of the difficulty of keeping it clean, and the latest apparatus contains no internal piping whatsoever. In like manner the four-legged stand has been dispensed with and replaced by having the trap act as a support. By an ingenious arrangement the bed-pan is revolved, by means of a crank on the outside, against the water sprays and is thus automatically emptied and washed clean in a closed vessel, without splashing water and without the escape of odors. This same apparatus provides the means of sterilizing either the emptied bed-pan or the bed-pan and contents.

Special attention has been given during the last year by the Scanlan-Morris Company, of Madison, Wis., to the simplifying of their sterilizing apparatus in the way of standardizing the various parts so that, in case any part ever needs replacement, it can be forwarded from the factory and placed in position by any good mechanic, a feature which will surely be appreciated by those using this type of apparatus, as it will not only prevent delay and inconvenience, but also greatly reduce the cost of such necessary work. In addition, this company has also constructed a new bed-pan and stool sterilizer (Fig. 8), which seems to have solved the problem of both sterilizing and emptying bed-pan and contents with one operation in a simple manner. The apparatus is made in the shape of a utensil sterilizer with rounded corners, the bed-pan resting on a specially shaped bracket attached to the cover, which automatically inverts inself when the cover is closed, thus emptying the contents into the sterilizer. The cover is held on a seat (gasket) by strong clamps, thus preventing any odor escaping into the room. The odor is carried into a 2-inch vent pipe, which is provided for this purpose at the base of the sterilizer. A steam chest or false bottom attached to the bottom of the sterilizer permits of the contents being agitated or sterilized by forcing the steam to circulate directly from the boiler through the chest. After a thorough sterilization of contents and bed-pan, the sterilizer is emptied by opening up the trap (valve) attached to the bottom of the sterilizer. A water supply is attached to the body of the sterilizer for flushing the bed-pan before sterilization, the pan being washed from within and on the outside by a series of sprays attached to the inside of the sterilizer.

A special feature commending itself to hospital workers in the construction of this apparatus is that it permits of steam from a high-pressure boiler to be used

Fig. 7. "Climax" sterilizer for automatically emptying and sterilizing bed-pans.

directly in the steam chest or bottom of sterilizer, thereby eliminating all reducing pressure valves, as the sterilizer is so constructed that it will stand upward of 65 pounds of steam pressure in the chest. The cover on the sterilizer is raised and lowered by means of an automatic foot pedal, thus leaving the attendant's hands free for manipulating the bed-pan.

A very important improvement has been added to their sterilizing apparatus during the year just past, by the American Sterilizer Company, of Erie, Pa., in the shape of a distilled water apparatus (Fig. 9), designed for attach-

ment to water sterilizers, thus extending the scope of water sterilizers to a still broader field of usefulness. During the process of sterilization, the temperature of the water in the reservoirs is raised to approximately 250 degrees F., with its corresponding pressure of about 15 pounds, representing the excess temperature of 40 degrees F. or more above the boiling point, to which the temperature should be reduced before attempting to operate the draw-off valve.

Formerly it was the practice to get rid of this excess temperature by the slow and unsatisfactory method of waiting for the water to cool by radiation or by opening an air-cock or vent and allowing the excess steam to escape, generally into the room, where it frequently increased the humidity to an objectionable degree and at the same time caused the waste of a valuable by-product, distilled water.

This newly patented process not only overcomes the objections heretofore existing, but also insures a plentiful supply of distilled water of the very highest quality for solutions, etc., every time the apparatus is operated, and

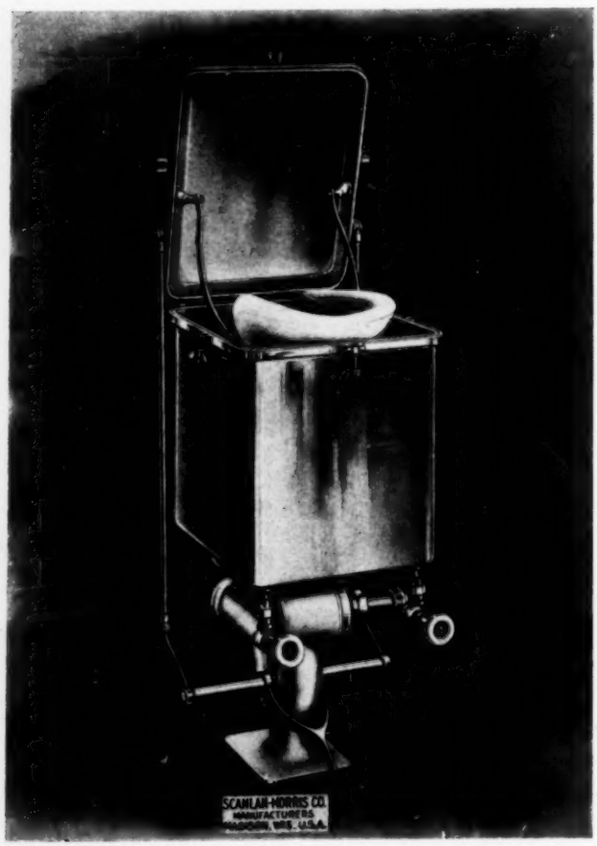

Fig. 8. "White Line" bed-pan sterilizer.

this practically without cost. It is apparent that this distillate will be of very high quality for the reason that all the water is first filtered, then sterilized, and it is the steam from this sterilized water which is used to produce the distilled product. Means are also provided for periodical steam sterilization of the entire distilling equipment, and when necessary to obtain larger quantities of distilled water there is ample reserve capacity. While this equipment was primarily designed for attachment to "American" sterilizers, the manufacturers are now prepared to furnish it in three different sizes for use in connection with other makes of water sterilizers.

A new instrument sterilizer has been brought out by the Wilmot Castle Company, of Rochester, N. Y., which is designed particularly for use direct in the operating room where operators frequently desire such a sterilizer

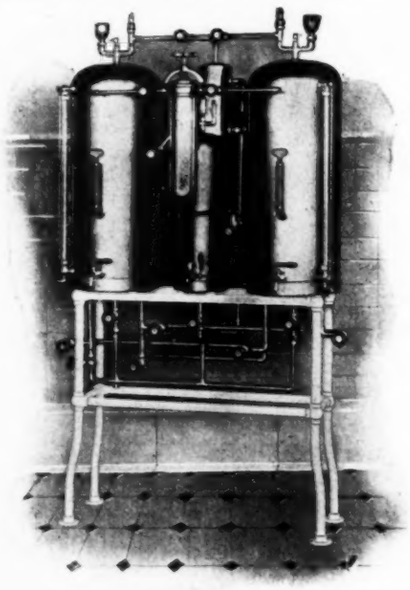

Fig. 9. "American" distilled water apparatus.

located for the sake of convenience. It is shaped much like a lady's upright desk with a cover that pulls down in front, leaving the top portion of the sterilizer covered, this top corresponding to the ledge at the top of the desk. A vent is located in the extreme top, so that, whether

Fig. 10. "Castle" distilled water apparatus.

the cover is open or closed, the natural path for the rising steam is up and out the vent, rather than into the room. The cover has attached to it at each end a light brass ladder chain, connected over brass wheels to a tray carrier which, when the cover is closed, lies in the

extreme bottom of the sterilizer. When the cover is open the carrier is raised to the top of the bottom portion so that the tray, which rests freely on the carrier, may be pulled out directly on the open cover, which serves as a drain board, carrying the water which drips from the tray back into the sterilizer. In a very few seconds the heat in the tray and instruments dries them off thoroughly, so that the tray of instruments may be carried away from the sterilizer without drip on the floor. The new sterilizer takes care of the three points in which older models failed, namely, it carries off the excess steam from the sterilizer at all times; it lowers and raises the tray in and out of the boiling water; and it provides means for draining and drying the tray and contents.

In addition to the new instrument sterilizer, this company has also constructed a distilled water apparatus for use with their water sterilizers. This apparatus consists simply of a small tin-lined brass reservoir permanently connected to the top of one of the water sterilizer reservoirs, thus representing merely an added steam dome for that sterilizer. Following the usual sterilizing process in the water sterilizer, it is possible in a few seconds to thoroughly steam cleanse the entire distilled water apparatus by blowing live steam through it. Following this, in about ten or fifteen minutes it is possible to produce one or two gallons of pure distilled water, utilizing the steam from the water sterilizer. The construction of the apparatus is very simple, there being but one valve to manipulate.

The Kny-Scheerer Corporation, of New York, one of the first firms in this country who have made the construction of high-pressure sterilizing apparatus one of the important features of their business, have also been continuously at work to improve the construction of their apparatus in order to bring them up to the high standard of efficiency demanded by the surgical profession.

It has been apparent to them for some time that the acknowledged fact that steam under 15 pounds pressure (250° F.) is fatal to all spore-bearing bacteria, has become to many hospital workers an acceptable theory that the presence of 15 pounds steam pressure within the sterilizing chamber is sufficient for all practical purposes, which, however, is a fallacy, because it requires the temperature of 250° F. throughout the entire contents of the sterilizing chamber, to be assured of thorough sterilization, consequently the question of penetration is of the most vital importance.

It is well known that cold absorbs heat, therefore if the steam is admitted to the dressings before the latter have been thoroughly heated, there will be an excessive condensation and loss of heat, resulting in wet dressings, thus making it more difficult to secure proper penetration.

This company for some years past advocated the necessity of attenuating the air by drawing a partial vacuum within the sterilizing chamber to insure better and more rapid penetration of the steam to the innermost recesses of the materials to be sterilized, and it is this matter of accelerating the penetration (which is displacement of air) to which they have given their most serious attention.

Since the adoption of the various methods of testing the penetration of steam, many hospitals have found the results to be negative, i. e., their tests show that the steam at the proper temperature does not penetrate to the innermost recesses of the materials, and it seems that some manufacturers have placed the blame for this on the uncertainty of the testing materials. This has not been the experience of the Kny-Scheerer Corporation. They have found that owing to the lack of knowledge of this principle of penetration the operators pack the materials into the sterilizing chamber too forcibly, thus forming a decidedly compact mass, which cannot be effectually penetrated with a steam pressure of 15 pounds. This should be borne in mind by hospital workers in charge of such apparatus, and the materials to be sterilized should be packed into the sterilizing chamber with this fact continually in view.

In order to facilitate penetration of material the Kny-Scheerer Corporation have built a new type of dressing sterilizer, designed to operate under two atmospheres of pressure, equaling 30 pounds. With this additional pressure and excess temperature, combined with other new features, they are assured of thorough penetration and absolute sterilization.

Another advancement brought out by this firm is the "sterilizer detector," which serves to indicate beyond peradventure just what has taken place within the sterilizer. It is well known that some operators are rather careless in handling the valves controlling the gas or steam supply, and instead of adjusting these so as to maintain the proper temperature, they permit them to remain open to the fullest extent until the steam safety valve blows off, when they will hastily close these valves to still the noise, but often forget to reopen them, which is necessary in order to maintain a constant temperature; however, after the prescribed period of thirty minutes has elapsed they presume that the process of sterilization is completed, whereas in reality the dressings have been only subjected to the required temperature for a few intermittent periods, with the resulting serious consequences. This new detector shows all this clearly on the dial, so that the conscientious operator will soon learn to handle the apparatus intelligently and without difficulty.

The First Diet Kitchen in Federal Army Base Hospital

What is said to be the first diet kitchen in the federal army base hospitals was established as an indirect result of the hundred-mile hike of the Seventh New York Regiment in August. Many suffered from heat exhaustion and consequently from gastro-enteritis and intestinal indigestion. When returned to camp these men were unable to eat the regular rations, and in order to enable them to return to duty in the shortest possible time, the medical officer in charge of the camp, Dr. C. Perley Gray, established a diet kitchen, with most gratifying results. Within twenty-four or thirty-six hours most of the men were enabled to return to active duty and restoration to health followed in a short time. The idea was later adopted at the base hospital.

Saving in Hospital Expenditure Through Employment of Full-Time Physicians

In March, 1916, the city of Buffalo adopted an ordinance replacing ten part-time physicians by four who give all their time to the work. Comparing the six months since the ordinance went into effect with the same period of 1915, it appears that there has been a saving of $10,366 in the hospital expenditures for indigent patients. The economy is attributed mainly to the shorter stay of patients in the hospital under the newer and more efficient system. The expenditures for 1916, it is estimated, will be $20,000 less than for the previous year.

Mrs. F. M. Beaty has resigned the superintendency of the City and County Hospital at Fort Worth, Texas.

HINTS FOR HOSPITAL SUPERINTENDENTS

This column is maintained as a help and reminder to hospital workers about the little things in administration. It is urgently requested that everyone contribute his and her "hints." Each item added to our knowledge helps to fill the common storehouse from which all may draw supplies.

One of the big items of expense in administering a hospital is the operation of the power plant. The principal item is the coal bill, and therefore it deserves a great deal of attention. You should watch the smoke stack, for when black smoke is rolling out, so are the dollars. The gases are not being consumed. You should see to your firing at once. The fireman, however, is not always to blame—it is very often the fault of the coal.

You should buy coal that contains 13,000 B. T. U. or more. B. T. U. means heat units. It is a unit of heat. A unit of heat is the amount of heat required to raise the temperature of one pound of water one degree. One pound of coal should contain at least 13,000 heat units. This means that one pound of coal consumed under 13,000 pounds of water will raise the temperature of that amount of water one degree, and 212 pounds of coal should raise the temperature of that amount of water to 212 degrees, the boiling point.

With a properly constructed furnace, a good fireman, and coal containing the proper B. T. U., with the least amount of ash, you can, without question, cut your fuel bill. Another saving is in oil used in engines, pumps, etc. Have drip pans to catch the oil, then filter and use it over again. A filter costs very little, and you will be surprised at the saving you will make. ASA S. BACON.

In purchasing hospital supplies it should always be kept in mind that there is a great difference between the cheapest price and real economy. Some goods are dear at the rate of a cent on the dollar.

As vacuum bottles are used more, the method of cleaning them becomes of practical importance. Two methods are used—one with shot and the other with some form of soda. The latter method is better as not endangering the glass. Caustic or washing soda is more cleaning or quicker than baking soda, but the latter will do. Hot water, soda, and little clippings of clean paper will do the work, shaking from time to time for fifteen minutes with the bottle corked.

Every day in the year hospital superintendents are asked to try new things; they are advised to buy things supposed to be improvements on what they have been using. Whenever the article that is being urged on us is offered as a substitute for something that we are not happy about at the present moment, or something that has failed us in time of need, we are very much disposed to try the new things. Somebody has to be the first, but there ought to be a time and a place and an opportunity to try new things, and we ought to think pretty carefully before we agree to try new things, especially when we are going to try them at our own expense and not at the expense of the manufacturer or selling agent.

It is a pretty good plan when a new device, or indeed anything new and untried, is offered to us to find out where and by whom it has been used, and then it is another pretty good plan to communicate with that person and find out whether it was satisfactory. About 90 percent of new things that are offered hospitals for trial prove to be worthless, and many of these worthless things have made fortunes for their owners just because the buyers did not take the precaution to find out what others' experience had been.

All of us ought to do a certain amount of experimenting, but where a new manufacturer invades a substantial and already very well-occupied field, he ought to be so sure of the efficiency of the device he is offering as to be willing to furnish it either at a very much reduced price or wholly free. Of course, if it is some piece of expensive apparatus like a self-feeding grate for the boiler plant, we have no right to ask a manufacturer to donate the article, but we have a right to insist on his looking over our plant, and then, after he sees just what the situation there is, he should be willing to guarantee satisfaction with his device or that he will take it out, or that we shall not be asked to pay for it. In a case of this particular sort we are doing a good deal to allow a new device to interfere with the running of our service. How much the less, then, should we be asked to pay for an unsuccessful device.

To trustees: A good many of you are dissatisfied with your superintendent, and you are expecting things of him or her that call for education, training, and experience of a most versatile executive. It is required of your superintendent that he or she shall know the markets, the difficulties and methods of preparation of a thousand items in foodstuffs; it is required that he or she shall have an intimate knowledge of the values of various fabrics, cotton and wool, a knowledge of medical and surgical instruments and appliances, a knowledge of all the scientific technic practiced in modern hospitals, which includes a working knowledge of medicine and surgery, in order that the demands of the medical staff can be satisfied; he or she must know the laws of sanitation and hygiene and how to apply them, must know mechanics in order to meet the exigencies of the power plant of the institution in all its branches, must know modern pathology at least to the extent of being able to direct and manage the asepsis of the institution and the disinfection of places and things. It is required that your superintendent shall have tact and diplomacy in order to handle the employees and keep the institution in favor with the public.

And yet your superintendent, in nine cases out of ten, is getting little more than day's wages, and is the poorest paid person, taking into consideration the character of the position, in the United States today. Does it not occur to you that you had better raise the standard of your superintendent, and, if your present executive is not measuring up to all these demands, get someone who can measure up to them and pay him or her a salary in keeping with the high skill required in the office?

The Denver Homeopathic College and Hospital Association, Denver, Colo., will soon launch a campaign for funds to erect a larger plant for the Park Avenue Hospital of that city. Tentative plans already made call for an expenditure of at least $100,000.

A SMALL HOSPITAL THAT PAYS

Community Institution Created by Selling Stock—Results of One Year's Operation

BY C. I. OLIVER, M. D.,
Secretary of the Western Minnesota Hospital, Graceville, Minn.

The first annual report of the Western Minnesota Hospital was rendered after the hospital had been in operation for thirteen months and twenty days. At this time the conditions were shown as follows:

Four hundred and twenty-six patients had been admitted. These patients had paid the hospital an aggregate of $9,723.73 in cash. There were outstanding accounts due the hospital amounting to $618.20, and all of this, with the exception of about $100, has since been paid in. We have paid out during the year the sum of $7,847.54, every cent of which came from the income above noted. This left us with $1,876.19 cash on hand and $618.20 due us on account. From the above-noted expenditures, permanent improvements to the amount of $874.07 were made in the building and grounds, and our invoice shows $455.61 of supplies on hand. All debts were paid, and the hospital did not owe a cent when the report was made. Therefore it will be noted that the hospital made a net profit of $3,205.87. As the hospital is a stock company, an annual meeting of the holders of stock was held and a dividend of 10 percent declared and the remainder left as a surplus.

Western Minnesota Hospital, Gracevjlle, Minn.

The report embodying these facts gained a certain amount of circulation, and a great many inquiries have been received by the secretary as to "how it was done." The fact is the promoters were about as surprised as anyone. No dividend was expected, and I think most of them were prepared to receive an assessment.

The hospital has 17 regular patient beds (21 have been accommodated). It represents an investment of $19,000, $15,000 being from stock sold and the rest from donations. Six of the single rooms were furnished by lodges and private parties, and are second to no rooms in any hospital for comfort and elegance of fixtures. For these rooms we get $25 per week. We have five other single rooms furnished by the hospital, for which we get $20 per week, and three 2-bed wards that bring in $15 per bed. Besides this we get a $5 operating room fee. This is our entire source of income. All doctors supply their own anesthetists and pay them. All doctors have to guarantee the hospital bill for all patients they bring in (we feel that if all hospitals did this, they would be listed on the stock exchange in place of having churches take up collections for them).

As to disbursements, we have a training school which is in affiliation with some hospitals of greater capacity. We have four pupil nurses who receive $5 per month, with board, room, and uniforms, and a registered nurse as superintendent, who receives $80 per month. Regular classes and lectures are held. Other fixed salaries are: janitor, $30; cook, $30; and laundress, $25. Electricity for light and power costs about $18 monthly. Our laundry is equipped with steam dryer, electric mangle and washer. Heat comes from a vacuum steam plant in the basement of the building. We also have a high-pressure steam boiler for heating water for use in the sterilizer. The coal bill for this and the kitchen range amounted to about $600 for the fourteen months. The bill for groceries, butter, milk, eggs, cream, and vegetables averaged about $160 and the meat about $30 per month; the upkeep of linen about $200 per year.

Going a little farther into detail, we find that our patients cost us, on an average, $1.93 per day. At this we made a little even on our ward patients. We were fortunate in that most of our patients desired the higher-priced rooms.

We have tried in every possible way to make our patients feel at home from the minute they come in the door until they go out. When they are under no dietary restrictions we let them order their next day's meals; this pleases them greatly and they ask for very little that it is not convenient to give them. We have the belief that a pleased hospital patient going out is the best advertising a hospital can get. The average number of daily patients at the start was about 7, but it has increased until the last three months we have had no bed vacant for more than forty-eight hours and most of the time we have a waiting list.

From our slight experience we would come to the following conclusions: any physician or group of physicians who can be fairly sure of an average of 7 daily patients at an average price of $20 per week, and guarantee the pay, can afford to build a 15-bed fairly modern hospital and break even on the game. If they cannot do this, they had better keep out. Each doctor should be willing to furnish all his own equipment, and should not have the idea the hospital owes him enough to buy every little fad that comes out.

There should be no rooms or wards so cheap that the hospital cannot come out even on them. Eight and 10-dollar patients are not to be desired in a hospital that intends to be self-sustaining, and they take all the profit from the good rooms; besides, they are usually the most troublesome.

Preach economy all the time to the employees. We have promised all our help a 10-percent raise if they will send out satisfied patients the next year at a lower cost per diem than the last year.

PENNSYLVANIA'S IDEA OF VIRTUE

Boasts of Being Without a Debt—But Eleven of Its State Hospitals Refuse to Admit Incurable Epilepsy

I submit this case to the people of Pennsylvania—a state without a debt—and ask them what they think about it.

An elderly Philadelphia gentleman, in modest financial condition, whose daughter was the unfortunate victim in this case, told me the circumstances yesterday. Some years ago the child was stricken with epilepsy. She was kept at home, but last spring her mental condition became such that it was necessary to send her to an institution. One hospital after another was visited. Some hospitals for epileptics refused to accept the patient because she was insane. Some hospitals for the insane refused to admit her because she was epileptic. Still others objected

to her admission because her ailment was incurable. "We cure, but do not act as custodian of incurables." That was the sentence imposed by institution after institution.

At one of the largest and newest hospitals in the state, and one which is a state institution, the unfortunate father received substantially this advice:

"Go see Senator So-and-so before you apply to such-and-such a hospital. Perhaps he can get your daughter cared for." But the kind-hearted senator could do nothing, powerful as his influence is in that locality.

In another instance the father of the girl was urged by the hospital authorities to use "political pull" to get her admitted into some other institution. The Norristown asylum was visited, but it was found overcrowded and with a waiting list.

In all the father was turned away from eleven hospitals whose specialty is either epilepsy or insanity. A twelfth was appealed to and the young woman was admitted.

This man was quite willing to pay a moderate and reasonable sum for the proper care of his daughter. In his distress he discovered that Pennsylvania, big as it is and rich as it boasts of being, does not apparently maintain a hospital for unfortunates who are both epileptic and insane.

Of ordinary hospitals we have a surfeit. Official reports show that thousands of hospital beds in Pennsylvania are unused every day.

But it seems there is a lack of this especial sort of hospital facility for the epileptic insane of which, the doctors tell me, there are unfortunately a large number. Hence the question: Is Pennsylvania unable to provide in civilized fashion for all of its mentally deficient?—Girard's Topics of the Town, in Philadelphia Ledger.

Motion Study for Surgeons

Mr. Frank B. Gilbreth has taken up the study of the question of operative efficiency and hospital efficiency, in which he makes the following statements:

"In studying hospitals we find the conditions, as a rule, much worse from a managerial standpoint than in the average factory, and some hospitals are so bad that they should be actually closed immediately.

"The standardization of hospitals is now gradually being recognized as desirable and necessary. Such standardization must be based on measurement, which, so far as the manual processes of the surgical clinic are concerned, consists mainly of motion-study.

"The tools of the surgeon have not been standardized in any satisfactory way. Any economic classification made of the tools of a hospital shows that the tool situation is positively pathetic and ridiculous, this present state being the outcome of the incentive which ever exists to design special tools. This condition can be realized only by subjecting the present tools to the tests of motion-study.

"Great practice with comparatively few tools is one of the laws of the most efficient use of tools. How does this compare with the custom universally present in surgery today? The average doctor usually considers that the possession of specially designed tools is a desirable asset. The constant incentive under present conditions in surgery is to design more tools, since the designer receives credit from the public, and sometimes also from his coworkers, and occasionally has the honor of having the new tools named for him. Naturally, the greater the number of tools, the less must be the practice with each; the smaller becomes the chance of having a standard tool which is used by all. The general tools of the hospital are by no means as carefully selected as are those of the trades and factories. There should be one central, specially equipped laboratory for measuring, testing, and comparing all new designs with existing standards."

WORRY A FORM OF WASTE MOTION

Consider the Automobile—Why Let the Mental Machinery "Run Idle"?

Not all worry is preventable, but for the most part it can be avoided. Most of our fears are never realized, and as a rule, if we meet our troubles day by day as they come, without worrying about them before they arrive or fretting over them after they have passed, we will find that we have the strength to rise above them. Worry undermines the health to a certain extent. It really weakens the mental forces by tiring them out by doing nothing. Consider the automobile. When the car is going to stand still for more than a few minutes the driver stops the engine. By doing this he saves gasoline, oil, and above all, useless wear and tear on the machinery. If he lets the engine "run idle" he has wasted a lot of valuable material, shortened the life of his engine, and in the meantime the automobile has not budged an inch.

Usually the relief from worry rests with the victim of this unhappy habit himself, but sometimes the real causes are not the ones which seem to explain the condition, and we must go deep into our lives or have the assistance of those who are skilled in unraveling mental processes. The best antidote for worry is a change of mental occupation, a getting away from the scenes which provoke worry, exercise in the open air, a good book, a pleasant recreation, or a temporary change of occupation. As a matter of mental health, every sufferer from this unfortunate condition owes it to himself to discover some simple means of getting away from this habit which is destructive to health and peace of mind alike.

Prizes Awarded by Military Surgeons

The Association of Military Surgeons of the United States announces the results in the Henry S. Wellcome Prize Competition. Captain Mahlon Ashford, M. C., U. S. A., who wrote on the subject, "The Most Practicable Plan for the Organization, Training and Utilization of the Medical Officers of the Medical Reserve Corps of the United States Army and Navy, and of the Medical Officers of the Officers' Reserve Corps of the United States Army, in Peace and War," was awarded a gold medal and $300. First Lieut. Henry C. Coe, M. R. C., of New York city, who received the honorable mention for this prize, was awarded a life membership in the association. A silver medal and $200 was awarded to Assistant Surgeon-General W. C. Rucker, U. S. P. H. S., whose essay was entitled: "The Influence of the European War on the Transmission of the Infections of Disease, with Special Reference to Its Effect Upon Disease Conditions of the United States." Passed Assistant Surgeon J. R. Hurley, U. S. P. H. S., received honorable mention for this prize and a life membership in the association. These prizes, which were given by Mr. Henry S. Wellcome, an American living in London, are annually competed for by officers of the Army, the Navy, the Public Health Service, the National Guard and the Officers' Reserve Corps of both the Army and the Navy. The essays of the successful contestants will be published at an early date in the *Military Surgeon*.

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NEWS OF THE HOSPITAL FIELD

The Pawnee Hospital is a new institution at Pawnee, Neb.

Dr. John C. Carmer is building a hospital at Lyons, N. Y.

Construction work has been started on a new Swedish hospital at Turlock, Cal.

Mrs. D. W. Snyder is fitting up a residence at Hicksville, O., for a private hospital.

A new county tuberculosis hospital will be opened at Henderson, Ky., about February 1.

The city of Cambridge, Mass., has recently opened a 60-bed addition to its tuberculosis hospital.

Complete new x-ray equipment will shortly be installed by the York Hospital and Dispensary, York, Pa.

A new $100,000 home for the Presbyterian Hospital, San Juan, Porto Rico, will be dedicated in March.

Business men of Carlisle, Ky., are promoting a movement for the establishment of a community hospital.

Dr. Hawkins, of Gardenville, Nev., has sold his private hospital at that place to Dr. Johnson, of Red Bluff, Cal.

The Northwest Sanitarium is the name of a new institution at Pullman, Wash. Dr. M. J. Beistel is the owner.

The Christian H. Buhl Hospital, Sharon, Pa., opened, in January, a new home for its nurses, erected at a cost of $75,000.

The German Hospital, of New York city, is offered a donation of $15,000 to build a 24-bed ward for children patients.

The Germantown Hospital, Philadelphia, has lately received a gift of $110,000 from Mrs. William G. Warden for a new main building.

Drs. Cole, Payne, Flothow, and Anderson, with others, all of Woodbine, Ia., are working on a plan to establish a hospital at that place.

Dr. F. J. Antoine, Prairie du Chien, Wis., has recently been made chief physician and surgeon at the Rosencrans Sanatorium in that city.

Dr. William J. Brickley has resigned the superintendency of the Haymarket Square Relief Hospital, Boston, to take up private practice.

The will of the late Jacob Harsen Purdy, of New York, contains a bequest of $100,000 to St. Mary's Free Hospital for Children, that city.

Harper Hospital, Detroit, Mich., is planning a $250,000 home for its nurses. It is reported that the building may be started early this spring.

Dr. D. Webster Lynch, West Bend, Wis., is establishing at that place a private sanatorium for the treatment of diabetes and Bright's disease.

Mr. and Mrs. A. Burke assumed the duties of superintendent and matron, respectively, at the Washoe County Hospital, Reno, Nev., January 10.

Dr. C. E. Fisher and others, of Lyons, Kan., will soon begin the erection of a hospital at that place. A building to cost about $20,000 is being planned.

The Brooklyn Nursery and Infants' Hospital, Herkimer street and Kensington avenue, Brooklyn, N. Y., has been closed after 40 years of service in behalf of destitute, poor

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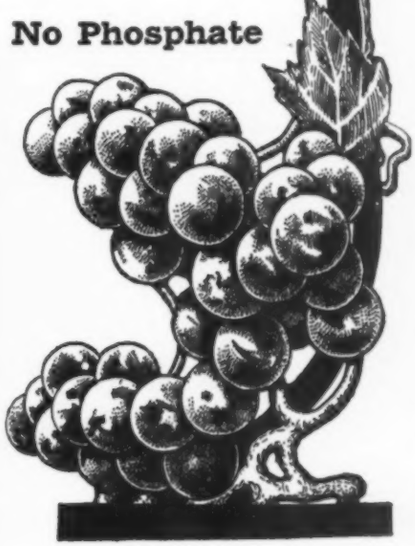

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and friendless children. Lack of the necessary financial support is given as the cause for discontinuing the institution.

A bill similar to the Iowa and Texas laws providing for the establishment of county hospitals will be introduced at the present session of the Utah legislature.

Drs. Lewis G. Beall and Bernard R. Smith, who conduct a private sanatorium in Asheville, N. C., are having plans drawn for additions to accommodate 80 patients.

The Buffalo City Council has voted an increase from $7 to $8.40 a week per capita for the care of indigent patients committed to private hospitals by agents of the city.

Architect W. H. Tremaine, Columbus, O., has completed plans for a 30-bed children's pavilion soon to be erected by the Franklin County Tuberculosis Hospital, that city.

The Lake City Hospital, a new private institution at Lake City, Minn., has been in operation since January 1 with Miss E. M. La Verney, of Chicago, as superintendent.

Miss Denster, of New York, has been appointed superintendent of the nurses' training school at the Wilkesbarre (Pa.) City Hospital, succeeding Miss Mary B. Miller, resigned.

Miss Emma Alber, a graduate of the Buffalo General Hospital, has accepted the position of superintendent of the training school of the Johnson City Hospital, Johnson City, N. Y.

The establishment in California of a school for the training of state hospital nurses is advocated by Dr. A. W. Hoisholt, superintendent of the Napa (Cal.) Hospital for the Insane.

Dr. George W. Tate, formerly manager of the Hot Lake Sanatorium, Hot Lake, Ore., has lately connected with the Paso Robles (Cal.) Hot Springs Company as medical superintendent.

Twelve to 15 beds have lately been added to the capacity of the Monnette Memorial Hospital at Bucyrus, O., by remodeling. A new heating plant is a contemplated further improvement.

The city of Chicago opened on January 8 the first unit of a new contagious disease hospital. Dr. E. K. Armstrong is the superintendent. The new building will accommodate 200 patients.

A fund has been raised at Cloverdale, Ore., for the establishment of a hospital, and it is reported that the institution will be operated under the management of Dr. Shearer, of that place.

A new home for the Alliance City Hospital, Alliance, O., was opened in January. The building, which is of fireproof construction, has a capacity of 50 beds, and is reported to have cost about $80,000.

A special committee appointed by the LaCrosse County (Wis.) board of supervisors to investigate the need of a county tuberculosis hospital, recommends the immediate erection of a $500,000 plant.

Miss B. E. Jacobsen, R. N., for the last year superintendent of the Anderson County Hospital, Anderson, S. C., has resigned this position to take charge of the Owensboro City Hospital, Owensboro, Ky.

Miss Margaret S. Wilson has resigned the superintendency of the training school at the Children's Hospital, San Francisco, to accept a similar position in Dr. Enloe's Private Hospital at Chico, Cal.

The Hebrews of Jersey City, N. J., will open a maternity hospital in the building at 264-8 Grove street, formerly occupied by the Home for the Homeless. Mrs. Eubelelier is to be the superintendent.

Mr. and Mrs. Ferdinand Schlesinger, of Milwaukee, have announced a gift of $150,000 to the Milwaukee Children's Hospital for a new building, contingent upon an equal sum being raised for endowment.

The erection of a fireproof hospital to cost about $20,000 and to be known as the Pratt Emergency Hospital will soon be started at Pratt, Kan. The undertaking will be financed by Drs. Patterson and Grogeire, surgeons for the Rock Island and Anthony and Northern railways, Drs.

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Boyce and Klippell and the railroad men. Tile and stucco will be used for the walls of the building and the partitions throughout will be of glass. Some of the rooms will be handsomely furnished.

The management of the Hebrew Hospital, Baltimore, reports the need of new quarters for private patients, and it is expected that steps will soon be taken toward raising a fund for the erection of a suitable building.

Mrs. James U. Norris, superintendent of the Polyclinic Hospital, New York city, has accepted the position of first assistant superintendent at the Presbyterian Hospital, New York, succeeding Dr. George B. Landers.

Dr. George B. Landers, assistant superintendent of the Presbyterian Hospital, New York city, left that institution January 1 to accept the position of superintendent at the Morristown Memorial Hospital, Morristown, N. J.

The Columbia Hospital, Norway, Ore., has recently been sold by its owner, Dr. Edward P. Lockart, to the Penn Iron Mining Company, which will continue it for the benefit of the company's employees in that section.

An institution for the care of feeble-minded children, youths, and adults to be erected on an 800-acre site, at a cost of $350,000, is provided for in a bill to be introduced at the present session of the California state legislature.

Application has been made to the St. Paul City Council for permission to build a $150,000 hospital in the Midway district. The institution, which is to be known as the Union Park Hospital, is being promoted by Dr. C. M. Cannon.

A recent court decision requires a New York hospital to pay taxes on its real estate from 1902 to 1907 because the founder of the institution kept title to the property in his own name instead of transferring it to the hospital corporation.

The Providence Sanitarium, Waco, Texas, is planning three new extensions, one to be a 7-story addition to the main building; one a home for nurses; and the other a kitchen building. The improvements are expected to cost about $200,000.

The Hays Hospital at Carson City, Nev., has recently been acquired by the Carson City Hospital Association and is being operated under the immediate management of Miss J. B. MacLeod, of Reno, a graduate of the Wesley Hospital, of Chicago.

Dr. J. C. Wiik, of Moscow, Idaho, has purchased in that city a site for a private hospital, which he will erect in the near future. Dr. Wiik was formerly assistant to the chief surgeon at the Northern Pacific Beneficial Association's hospital in Missoula, Mont.

Dr. H. H. Johnson, first assistant superintendent of Sydenham Hospital, Baltimore, Md., under Dr. J. F. Hogan, has been made superintendent of that institution following the appointment of Dr. Hogan as second assistant commissioner of health.

Miss M. B. Maggi, R. N., formerly superintendent of the Rochester General Hospital, Rochester, Pa., and for a time connected with the Abbott Hospital, Oscaloosa, Ia., has recently accepted the position of superintendent at the Citizens' Hospital, Barberton, Ohio.

Drs. Edward M. Pallette and Thomas C. Myers, of Los Angeles, will soon begin the erection in that city of a $25,000 office building for doctors to include an operating room, sterilizing room, and fluoroscopic room, together with x-ray and pathological laboratories.

The Woman's Medical College, of Philadelphia, operating the Hospital of the Woman's Medical College at Twenty-first street and N. College avenue, has lately organized a society which has for its object the raising of one million dollars for permanent endowment.

The Morrell Memorial Hospital, opened last summer by the city of Lakeland, Fla., is making excellent progress, according to the local press. A recent report of the superintendent, Miss Margaret Angland, brought out the fact that the receipts of the institution were considered exceeding the cost of operation. At a Christmas celebration held at the hospital Miss Angland was presented with $25 in gold from the city in appreciation of her work, also with

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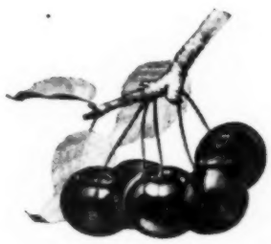

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a gold-handled parasol from the nurses as a testimonial of the esteem in which she is held by those associated with her. The hospital is housed in a new building with facilities to care for about 25 patients at a time.

Dr. Bernard L. Wyatt, of the Adirondack Cottage Sanatorium, Saranac Lake, N. Y., has accepted an appointment as superintendent of a new tuberculosis hospital to be opened by Fayette County, Kentucky, near Lexington, about July 1. The plant is now under construction.

Ohio's State Board of Administration is asking for $14,000,000 to run the state's various institutions for the next two years. This sum includes nearly $4,000,000 for additional lands and new buildings. The building program calls for the expenditure of more than a million dollars.

The New York City Board of Estimate closed its business for the year 1916 by voting an appropriation of $1,000,000 for new buildings for the city's home and school for feeble-minded children. The institution is located on Randall's Island and is in charge of Dr. William Burgess Cornell.

The Memorial Hospital, Pawtucket, R. I., opened a new out-patient building January 1. The equipment, which is said to provide every needed facility, includes a standardized record system with an automatic dispatcher, by which records are sent from the different departments to the filing room.

The Cook Hospital, Fairmont, W. Va., which was almost destroyed by fire on the night of December 18, will soon be rebuilt. Insurance amounting to more than $50,000 is already available for building purposes, and it is believed that the necessary additional funds can be raised in a short time.

Friends of St. Michael's Hospital, Newark, N. J., are considering plans for a golden jubilee celebration to be held this year in commemoration of the founding of the institution. The hospital was opened in May, 1867, in a small building with beds for 13 patients. It is now caring for about 12,000 cases a year.

The Brattleboro Memorial Hospital, Brattleboro, Vt., announces a gift of $15,000 from George L. Dunham, Mrs. Dunham, and their daughter, Evelyn, all of Brattleboro, to build a home for its nurses. The new building is to be a memorial to Marion Hawley Dunham, deceased, who was a daughter of Mr. and Mrs. Dunham.

Mrs. Henry Newman, of New Orleans, who some time ago donated $25,000 to the Touro Infirmary, of that city, for the erection of a maternity annex, has lately raised her gift to $50,000, with the object of providing a hospital that will be largely self-sustaining. Construction work will be started soon on a 50-bed building.

Miss Gladys Tuttle, a graduate of St. John's Hospital, Brooklyn, N. Y., has been appointed superintendent of the Southside Hospital, Babylon, L. I., to take the place of Mrs. Robert Burns (formerly Miss Julia Murphy), who will join her husband at Riverhead. Mrs. Burns was in charge of the Southside Hospital over five years.

The Carney Hospital, Boston, has had plans prepared for a medical research laboratory to be erected in the near future. The building will be a gift from M. Douglas Flattery, who last year presented the hospital with a quantity of radium and is known as the founder of the Flattery Research Fellowship at the Harvard Medical School.

The will of the late Mrs. Eveline W. Moon, of Akron, O., drawn 30 years ago, but only recently filed for probate, contains a bequest amounting to approximately $50,000 for the purchase of a site for a new city hospital. It is provided, however, that at the discretion of the executor the money may be used for the improvement of existing hospitals.

The Southwest Minnesota Tuberculosis Association, an official organization of the counties of Rock, Pipestone, Lincoln, Lyon, Murray, Nobles, Jackson, and Cottonwood, has just opened at Worthington, Minn., a new tuberculosis sanatorium, erected and equipped at a cost of approximately $100,000, half of which was contributed by the state. At the outset the sanatorium has facilities to care for 50 patients, but the heating plant, kitchen, etc., is extensive enough to meet the needs of a much larger institution, and it will, therefore, be possible to provide addi-

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Emergency Hospital, Washington, D. C.
Garfield, Hospital, Washington, D. C.
Providence Hospital, Oakland, Cal.
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tional room at comparatively small cost. Dr. E. J. Murray, formerly of Meriden, Conn., is the superintendent. Patients who can afford to do so will be expected to pay a nominal fee. Those who can pay nothing will be supported by the state.

The Bartholomew County Registered Nurses' Association has recently been organized at Columbus, Ind. Miss Edith Weller, superintendent of the new Bartholomew County Hospital, was active in forming the association and was elected vice-president. Other officers are: Miss Elizabeth Cox, R. N., president; Miss Daisy Bliss, R. N., secretary-treasurer.

The cornerstone of a $100,000 hospital being erected at Fremont, Ohio, by the Fremont Hospital Association, was laid December 4. Dr. Martin Stamm, who has conducted a private hospital in Fremont for a number of years is preparing to dismantle and close his institution January 1. It is reported that Dr. Stamm will make an extended tour of South American countries.

The Sisters of St. Francis are making extensive improvements in their Wisconsin hospitals. A large addition to St. Vincent's Hospital at Green Bay is nearing completion, and plans are being drawn for additions to St. Nicholas' Hospital, Sheboygan, and St. Joseph's Hospital, Chippewa Falls. The sisters also expect to enlarge the Sacred Heart Hospital at Eau Claire.

The De Graff Memorial Hospital, a 30-bed institution established two years ago in North Tonawanda, N. Y., has cared for about 1,000 cases, including over 700 operations, and is now almost continuously full of patients. An extension to increase the capacity is being considered. The hospital serves both Tonawanda and North Tonawanda and is the only hospital in these towns.

The Ambercrombie Guild, an auxiliary of Christ Hospital, Jersey City, N. J., has undertaken the raising of a mile of dimes to pay off a mortgage on the hospital building. Strips of paper, each holding 16 dimes and representing one foot of the mile are distributed to members of the guild, who in turn are asking their friends and others interested in the hospital to fill the strips.

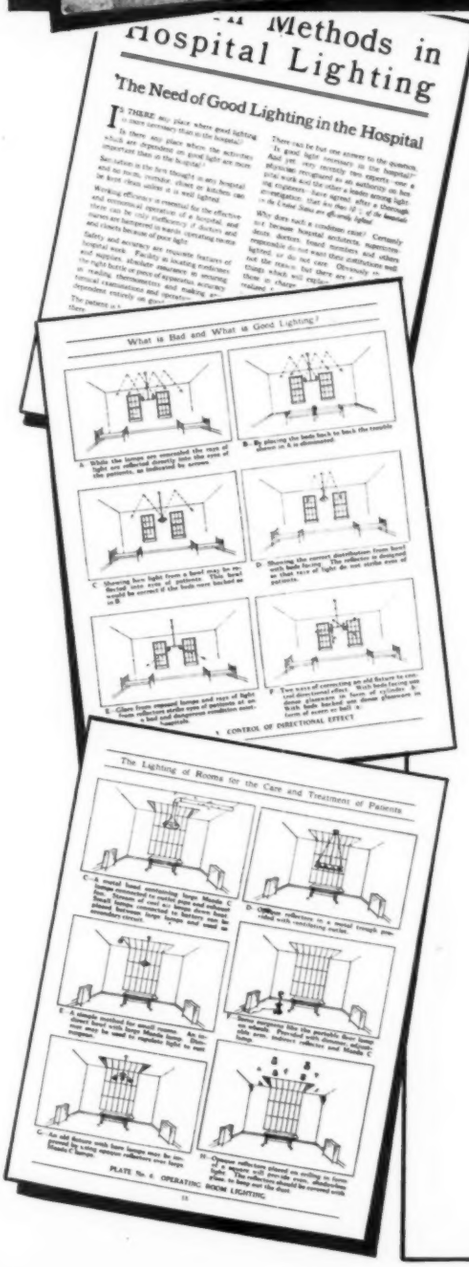
The Flagler Hospital, St. Augustine, Fla., will receive a bequest of $100,000 under the will of the late Mrs. Chas. W Harkness, of New York city. The original building of the hospital was burned in April of last year and arrangements have already been made to begin the erection of a new plant in the near future. It is understood that the Harkness bequest will be added to the endowment of the institution.

A site has been donated and a fund of $32,500 raised by popular subscription at Pekin, Ill., for a new general hospital. Plans for the building call for a fireproof structure with a capacity of 18 beds. Both the building and the equipment will be thoroughly modern, it is said. Hot sulphur baths are to be a feature of the service the institution will afford, the water for these baths to be piped from a local mineral spring.

The establishment of three state sanatoriums for the care of tuberculosis patients, each institution to cost $300,000, is provided for in a bill which will be submitted to the California legislature of this year by Dr. H. Klyberg, of Merced, assemblyman from the Forty-ninth district. The bill specifies that one of the sanatoriums shall be located in the northern, one in the southern, and one in the central part of the state.

A sale of 99 acres of land near Hempstead, N. Y., has just been made to Brooklyn parties, who are said to be trustees of the Mercy Hospital at Hempstead, and it is reported that this is the first step in the direction of developing a large plant for this institution. One million dollars will be raised, it is said, for buildings and equipment. According to the same source of information, a $70,000 structure to form the first unit of the new plant will be started at an early date.

It is probable that hospitals of Pennsylvania receiving financial aid from the state will soon be asked to install clinics for the treatment of social diseases, with the loss of state aid as a penalty for refusal, according to an announcement reported to have been made by Dr. J. M. Baldy, head of the state bureau of medical examination and licensure. "This bureau has the power to enforce the establish-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ment of such clinics," Dr. Baldy is quoted as saying, "and there is great need for them. We are proceeding carefully, however, to ascertain what hospitals should first be asked to install clinics, and I do not anticipate that any institution receiving aid from the state will have to be deprived of its appropriation."

The county hospital at Douglas, Ariz., recently took advantage on an opportunity to serve the poor in an unusual way. The hospital had ordered a carload of coal, amounting to 45 tons. When the coal arrived it was found that only 20 tons would be needed, and it was decided to sell the rest to the poor people of the city at cost. Five hundred 100-pound sacks were thus disposed of, the purchasers being required to furnish the sacks and transport the coal from the hospital to their homes.

On the petition of the Massachusetts Association of Boards of Health, two bills designed to check the spread of tuberculosis have been filed for submission to the Massachusetts state legislature. One of the measures provides that persons suffering from tuberculosis who refuse or neglect to care properly for themselves may be removed to an institution. The other bill authorizes the expenditure of $50,000 for acquiring land and erecting a sanatorium for incorrigible tuberculosis patients.

Dr. Edwin R. Lewis, assistant superintendent of the Massachusetts Homeopathic Hospital, Boston, from 1909 to 1916, has lately been elected superintendent of the Hahnemann Hospital, Rochester, N. Y., and is now in charge of the latter institution, which will soon open a new pathological laboratory under the direction of Dr. Ralph R. Mellon. Dr. Mellon has been assistant professor of physical diagnosis and director of the laboratory of pathology in the homeopathic department of the University of Michigan medical school for the last seven years.

Dr. W. T. Phy, of Spokane, Wash., has purchased the Hot Lake Sanatorium, Hot Lake, Ore., for $75,000. Dr. Phy was formerly medical superintendent of the institution, which was established a number of years ago at a cost, for land and buildings, of $400,000. During the last few years the operating company has failed to pay interest on an outstanding bond issue of $250,000 and the mortgage was foreclosed by the bondholders. Dr. Phy proposes to renovate the entire plant, install first-class medical and surgical equipment, and increase the staff.

One out of every 261 persons in New York state is insane and under treatment in an institution, according to the annual report of the State Hospital Commission for the fiscal period from October 1, 1915, to June 30, 1916. The total number of insane patients under treatment in institutions in the state during the period was 43,531. During the period covered by the report, the net increase of patients was 918. During the last ten years the annual increase in the state hospitals has been 937. In a request for appropriations, the commission recommends that sufficient funds be provided to stop overcrowding, by a bond issue of $10,000,000.

Dr. Charles E. MacDonald, a reader of THE MODERN HOSPITAL at Guayaquil, Equador, writes that the South American Development Company, with which he is connected as chief surgeon, is completing at Portovello, Equador, what will be the largest hospital in that country. The South American Development Company maintains an American nursing service under the direction of Miss K. B. Lipp. Dr. MacDonald belongs to the medical reserve corps of the U. S. Army. He was formerly chief surgeon of the Remington Arms Company, at Bridgeport, Conn., and later medical director of the American War Relief Expedition at Budapest, Hungary.

The erection of a hospital in New York city, to be known as the "St. Nicholas," will be started shortly, according to New York press dispatches. The building, which is to be a five-story fireproof structure with a capacity of 60 beds, will be located at St. Nicholas avenue and 148th street. Stephen Birch, head of the Kennecott Copper Company, is president of the incorporating board of directors. Other incorporators are Frank L. Clark, James H. Ralph, and Henry Fletcher. Dr. Harlow Brooks, professor of medicine at the New York University and Bellevue Medical College, will have charge of the medical department of the new institution, while the surgical division will be under the supervision of Dr. Seth

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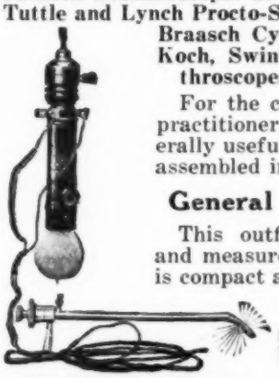

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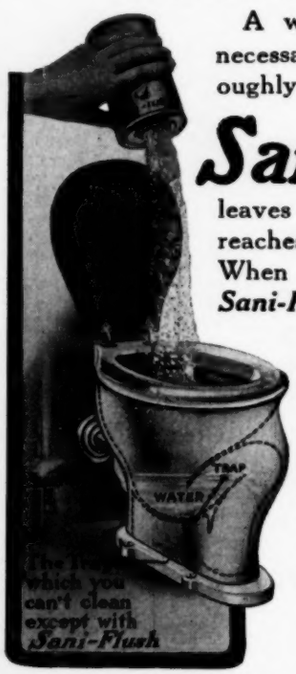

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The Cartwright Hospital, at Valley, Wash., is an example of what enterprise may accomplish in the direction of providing hospital facilities for a community under unfavorable circumstances, including the lack of money.

Valley is the center of a typical western rural community. Dr. W. A. Cartwright, a young man, but old enough to have taken a post-graduate course in surgery under the Mayos at Rochester, Minn., has practiced among the farmers of the surrounding territory for several years. In 1915 he had about decided to move to a larger place, but the farmers urged him to stay, and he finally consented to do so, on the condition that they would build a hospital where he could take care of his cases.

The farmers had been running union stores and cooperating in other ways, so it was not hard for them to get together on the community hospital proposition. Most of the people were willing to help, but it proved that nearly everybody was short of ready cash. It seemed for a time that the movement had failed, then somebody suggested that subscriptions of farm products be accepted. After a little investigation this plan was adopted and the result was six carloads of hay, many barrels of potatoes, oth r crops, cordwood, etc., amounting in value, all told, to over $6,000.

A site had been donated and arrangements were made for the erection of a modern frame building. This was completed about a year ago and the 13 patients' rooms were furnished by individuals and church associations. The hospital has a tiled surgery and most of the latest appliances for efficient hospital service. Because it was made possible largely by contributions of hay, the institution is known locally as "the hospital that hay built."

Although officially styled the Cartwright Hospital, the institution is owned and controlled by the farmers, to whom stock has been issued according to the value of hay or other products subscribed.

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